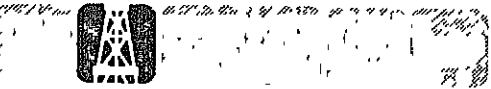
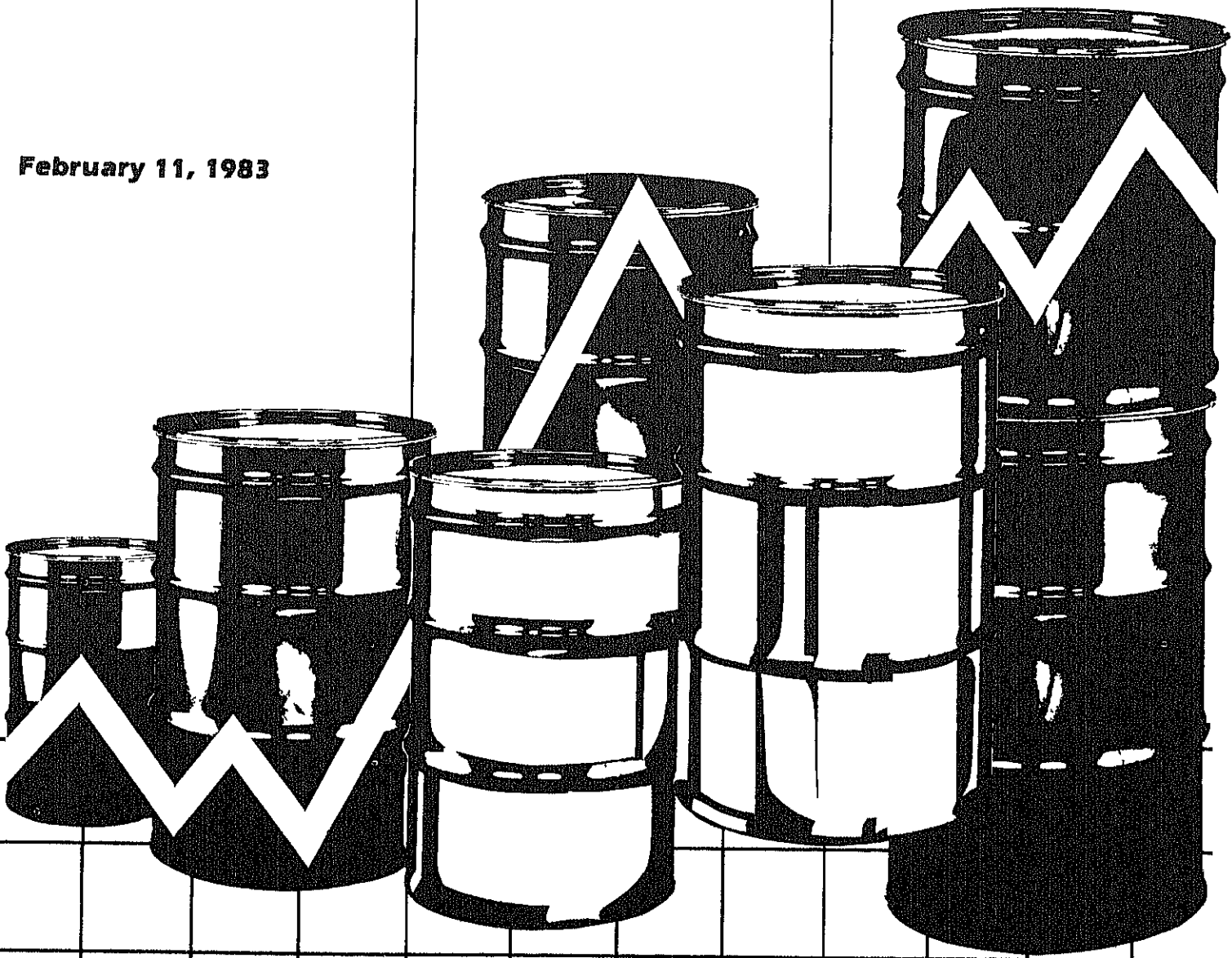




# Weekly Petroleum Status Report



February 11, 1983



The Weekly Petroleum Status Report (WPSR) provides timely information on the petroleum supply situation in the context of historical information, selected prices, and forecasts. The WPSR is intended to provide up-to-date information to the industry, the press, planners, policy-makers, consumers, analysts, and State and local governments. It is published each Friday by the Energy Information Administration. The data contained in this report are based on company submissions for the week ending 7 a.m. the preceding Friday.

This publication is available on an annual subscription basis from the Superintendent of Documents, U.S. Government Printing Office (GPO). Make check or money order payable to the Superintendent of Documents. You may send your money order to the U. S. Government Printing Office or the National Energy Information Center. GPO prices are subject to change without advance notice.

#### Annual Subscription

—Domestic— \$55.00/year  
—Foreign— \$68.75/year

#### Single Copy

—Domestic— \$ 2.75/copy  
—Foreign— \$ 3.45/copy

Questions on energy statistics and the availability of other EIA publications and orders for EIA publications available for sale from the Government Printing Office may be directed to the National Energy Information Center.

Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402  
Order Desk (202) 783-3238

National Energy Information Center, EI-20  
Energy Information Administration  
Forrestal Building  
Room 1F-048  
Washington, D.C. 20585  
(202) 252-8800

## Contents

Highlights . . . . .	1
U. S. Petroleum Balance Sheet . . . . .	3
<b>Refinery Operations</b>	
Refinery Inputs and Utilization . . . . .	4
U.S. Refinery Production by Product . . . . .	5
<b>Stocks</b>	
Stocks of Crude Oil and Petroleum Products, U.S. Totals . . . . .	6
Stocks of Crude Oil and Petroleum Products (graph) . . . . .	7
Stocks of Crude Oil (graph) . . . . .	7
Stocks of Motor Gasoline by Petroleum Administration for Defense District . . . . .	8
Stocks of Motor Gasoline (graphs) . . . . .	9
Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District . . . . .	10
Stocks of Distillate Fuel Oil (graphs) . . . . .	11
Stocks of Residual Fuel Oil by Petroleum Administration for Defense District . . . . .	12
Stocks of Residual Fuel Oil (graphs) . . . . .	13
<b>Imports</b>	
Imports of Crude Oil and Petroleum Products . . . . .	14
Gross Imports of Petroleum Products by Product . . . . .	15
<b>Products Supplied</b>	
Petroleum Products Supplied . . . . .	16
<b>Prices</b>	
Average Retail Selling Prices: Motor Gasoline and Residential Heating Oil . . . . .	17
Refiner Acquisition Cost of Crude Oil . . . . .	17
World Crude Oil Prices . . . . .	18-19
Spot Market Product Prices . . . . .	20-21
<b>Weather</b>	
Heating Degree-Days . . . . .	22
<b>Other Fuels</b>	
Natural Gas in Underground Storage . . . . .	23
<b>Appendices:</b>	
A: EIA Weekly Data: Data Collection and Method of Estimation . . . . .	24
B: Interpretation and Derivation of Average Inventory Levels . . . . .	25
C: Projection of Products Supplied from the Short-Term Energy Outlook . . . . .	26
D: Changes in 1983 Petroleum Supply Reporting System . . . . .	27
E: Calculation of World Oil Prices (page 19) . . . . .	28
Glossary . . . . .	29

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.

## Highlights

### Refinery Operations

Crude oil inputs to refineries averaged 11.1 million barrels per day for the four weeks ending February 4, 1983. Refinery capacity utilization averaged 66.6 percent during the period. During the four weeks ending February 4, 1983, motor gasoline production averaged 6.0 million barrels a day, and distillate fuel oil production averaged 2.3 million barrels a day.

### Stocks

On February 4, 1983, stocks of crude oil stood at 353.3 million barrels, which is about 5 percent below the level one year ago. Stocks of total motor gasoline, at 242.7 million barrels, were about 7 percent below the level one year ago. Distillate fuel oil stocks stood at 157.9 million barrels, which is about 4 percent below the level one year ago. Stocks of residual fuel oil stood at 56.8 million barrels, which is 15 percent below the level a year ago.

### Imports

Net imports of crude oil (including imports for the Strategic Petroleum Reserve) and petroleum products together averaged 3.4 million barrels a day for the four-weeks ending February 4, 1983, about 21 percent below their average a year ago. Gross imports of crude oil (excluding the Strategic Petroleum Reserve) averaged 2.8 million barrels a day for the four-week period ending February 4, 1983.

### Products Supplied

Total petroleum products supplied averaged 15.1 million barrels a day for the four-week period ending February 4, 1983, which is about 5 percent lower than during the comparable period last year. Motor gasoline was supplied at a rate of 6.1 million barrels a day, which is about 3 percent above the rate supplied a year ago. Distillate fuel oil was supplied at a rate of 3.1 million barrels a day, about 9 percent below the rate one year ago.

### World Crude Oil Price

Egypt reduced its official crude oil prices between \$1.00 and \$2.00 a barrel, effective February 1, with payment terms remaining at 60 days. Egyptian Suez Blend was reduced by \$2.00 a barrel to \$29.00 FOB. Libyan Es Sider crude has been corrected to \$35.15 FOB a barrel from \$35.10. This official price, though largely theoretical due to price discounting, has remained in effect since April 1, 1982.

As a result of the changes noted above, the estimated weighted average international price of crude oil as of February 9, 1983 is \$32.89 a barrel.

### Spot Market Product Prices

For the week ending February 4, 1983, the average spot market price of 98 octane gasoline on the Rotterdam market decreased 18 cents to \$33.70 a barrel; the gasoil price decreased \$2.08 to \$32.37 a barrel, and the price of residual fuel oil decreased \$2.11 to \$23.87 a barrel. On the New York market, the average spot price of 89 octane regular gasoline decreased 46 cents to \$34.57 a barrel; the price of No. 2 heating oil decreased 53 cents to \$32.55 a barrel, and the residual fuel oil price decreased 50 cents to \$25.00 a barrel.



**U.S. Petroleum Balance Sheet**  
(Thousands of Barrels per Day)

	Four-Week Averages For Period Ending		Percent Change
	02/04/83	02/04/82	
<hr/>			
Crude Oil Supply			
(1) Domestic Production <sup>1</sup>	E8,637	8,671	-0.4
(2) Net Imports (Including SPR) <sup>2</sup>	2,793	3,328	-16.1
(3) Gross Imports (Excluding SPR)	2,842	3,404	-16.5
(4) SPR Imports	217	169	--
(5) Exports	E266	245	8.5
(6) SPR Stocks Withdrawn (+) or Added (-)	-218	-167	--
(7) Other Stocks Withdrawn (+) or Added (-)	-145	-218	--
(8) Products Supplied and Losses <sup>3</sup>	E-53	-66	--
(9) Unaccounted-for Crude	127	49	--
(10) Crude Oil Input to Refineries	11,141	11,597	-3.9
Other Supply			
(11) NGL Production	E1,587	1,545	2.7
(12) Other Hydrocarbon Input and Alcohol Input	E60	41	47.2
(13) Crude Oil Product Supplied <sup>4</sup>	E51	63	-20.0
(14) Processing Gain	529	485	9.1
(15) Net Product Imports <sup>4</sup>	625	1,021	-38.8
(16) Gross Product Imports <sup>4</sup>	1,218	1,602	-24.0
(17) Product Exports	E593	581	2.0
(18) Product Stocks Withdrawn (+) or Added (-) <sup>5</sup>	1,103	1,144	--
(19) Total Product Supplied for Domestic Use	15,096	15,895	-5.0
Products Supplied			
(20) Motor Gasoline	6,143	5,936	3.5
(21) Naphtha-type Jet Fuel	159	165	-3.5
(22) Kerosene-type Jet Fuel	838	846	-0.9
(23) Distillate Fuel Oil <sup>3</sup>	3,057	3,376	-9.5
(24) Residual Fuel Oil <sup>3</sup>	1,713	2,109	-18.8
(25) Other Oils <sup>6</sup>	3,186	3,463	-8.0
(26) Total Products Supplied	15,096	15,895	-5.0

Cumulative daily averages for 1983 and 1982 will be shown again in the WPSR U. S. Petroleum Balance Sheet when sufficient 1983 data are available to provide a reasonable comparison.

Cumulative daily averages for 1983 and 1982 will be shown again in the WPSR U. S. Petroleum Balance Sheet when sufficient 1983 data are available to provide a reasonable comparison.

Petroleum Stocks (Millions of Barrels)	02/04/83	01/28/83	02/04/82	Percent Change from	
				Previous Week	Year Ago
Crude Oil (Excluding SPR) <sup>7</sup>	353.3	360.1	370.9	-1.9	-4.8
Total Motor Gasoline	242.7	242.9	262.1	-0.1	-7.4
Finished Motor Gasoline	200.8	202.2	214.0	-0.7	-6.2
Blending Components	41.9	40.7	48.0	3.1	-12.7
Naphtha-type Jet Fuel	5.8	5.2	6.7	11.6	-14.2
Kerosene-type Jet Fuel	32.8	33.1	30.4	-0.9	7.8
Distillate Fuel Oil	157.9	162.9	163.9	-3.1	-3.7
Residual Fuel Oil	56.8	55.3	67.1	2.8	-15.3
Unfinished Oils	107.7	107.9	116.7	-0.2	-7.8
Other Oils <sup>8</sup>	E151.5	E153.7	204.0	-1.4	-25.7
Total Stocks (Excluding SPR)	1,108.5	1,121.1	1,221.8	-1.1	-9.3
Crude Oil in SPR	300.9	298.4	235.9	0.9	27.6
Total Stocks (Including SPR)	1,409.4	1,419.5	1,457.7	-0.7	-3.3

E=Estimates based on monthly data.

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Net Imports = Gross Imports (line 3) + SPR Imports (line 4) - Exports (line 5).

<sup>3</sup> In 1983 crude oil burned as fuel is treated as a product and a new category, crude oil product supplied, has been created. In prior years crude oil burned as fuel was treated as a transfer of crude oil to residual and distillate fuel oil product categories and was an element of the product supplied calculations of those products. Product supplied series for distillate and residual fuel oils for 1982, shown in the second column of the U.S. Petroleum Balance Sheet have been recalculated without these transfers. See Appendix D. Among the product supplied categories of the balance, crude oil product supplied is included in other oils product supplied.

<sup>4</sup> Includes unfinished oils and natural gas plant liquids for processing.

<sup>5</sup> Includes an estimate of minor product stock change based on monthly data.

<sup>6</sup> Other oils product supplied reflects crude oil product supplied and the reduction for reclassified products.

<sup>7</sup> Includes crude oil in transit to refineries.

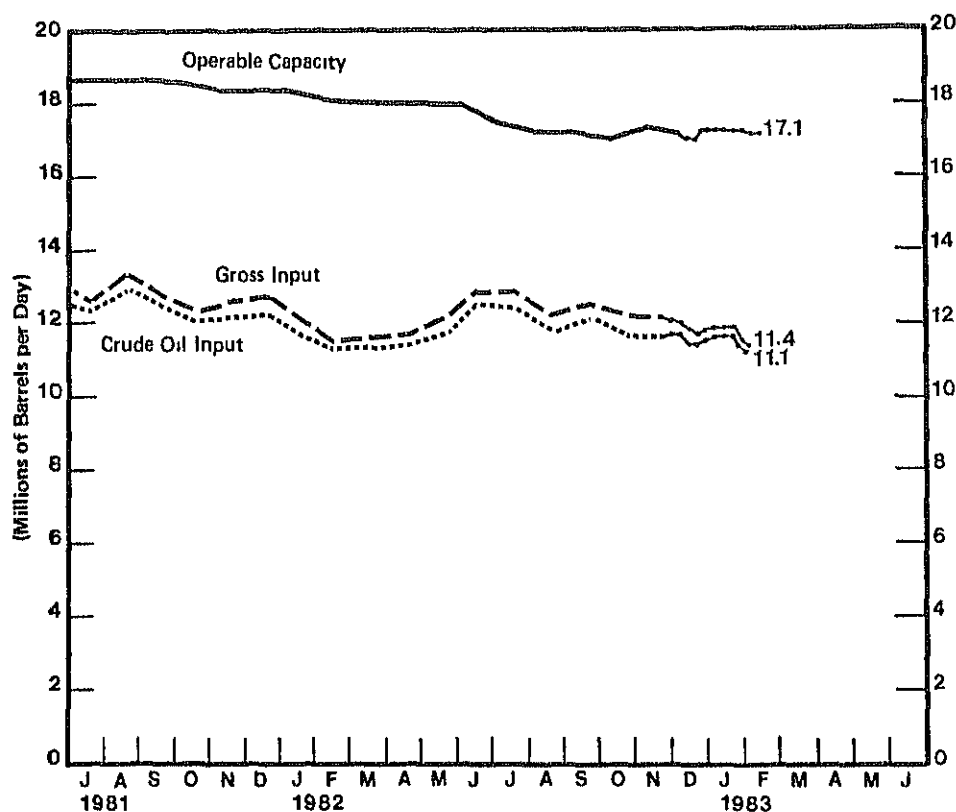
<sup>8</sup> Included are stocks of all other oils such as aviation gasoline, natural gas liquids (including ethane), kerosene, petrochemical feedstocks, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils. For the current two weeks, stocks of these minor products are estimated from monthly data.

Sources:

- 1981: EIA, "Petroleum Supply Annual."
- 1982 Monthly Data: EIA, "Petroleum Supply Monthly."
- 1983 Four-week Averages: Estimates based on EIA weekly data.

Note: Due to independent rounding, individual product detail may not add to total.  
The percentages shown are calculated using unrounded numbers.

Refinery Inputs and Utilization  
(Millions of Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
Crude Oil Input	13.2	12.9	12.4	12.1	12.3	12.4	12.3	12.9	12.5	12.1	12.2	12.3
Gross Inputs	13.5	13.2	12.6	12.3	12.6	12.7	12.6	13.2	12.7	12.4	12.6	12.7
Operable Capacity	18.6	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.6	18.4	18.4	18.4
Percentage Utilization <sup>1</sup>	72.5	70.8	67.7	65.7	67.2	68.1	67.4	70.6	68.4	67.0	68.2	69.2
<b>1982</b>												
Crude Oil Input	11.6	11.3	11.3	11.4	11.8	12.5	12.4	11.9	12.1	11.7	11.7	
Gross Inputs	12.0	11.6	11.7	11.8	12.2	12.9	12.9	12.3	12.5	12.2	12.2	
Operable Capacity	18.1	18.0	18.0	18.0	18.0	17.6	17.1	17.1	17.0	17.2	17.1	
Percentage Utilization <sup>1</sup>	66.3	64.6	64.9	65.5	68.0	73.6	75.2	71.6	73.9	70.8	71.1	
<b>Average for Four-Week Period Ending:</b>												
<b>1982/1983</b>	<b>12/3</b>	<b>12/10</b>	<b>12/17</b>	<b>12/24</b>	<b>12/31</b>	<b>1/7</b>	<b>1/14</b>	<b>1/21</b>	<b>1/28</b>	<b>2/4</b>		
Crude Oil Input	11.8	11.8	11.6	11.6	11.7	11.8	11.8	11.8	11.4	11.1		
Gross Inputs	12.1	12.0	11.9	11.8	11.9	11.9	11.9	11.9	11.6	11.4		
Operable Capacity	E17.0	E17.0	E17.2	E17.2	E17.2	E17.2	E17.2	E17.2	E17.1	E17.1		
Percentage Utilization <sup>1</sup>	71.0	70.8	69.3	69.0	69.3	69.3	69.2	69.3	67.7	66.6		

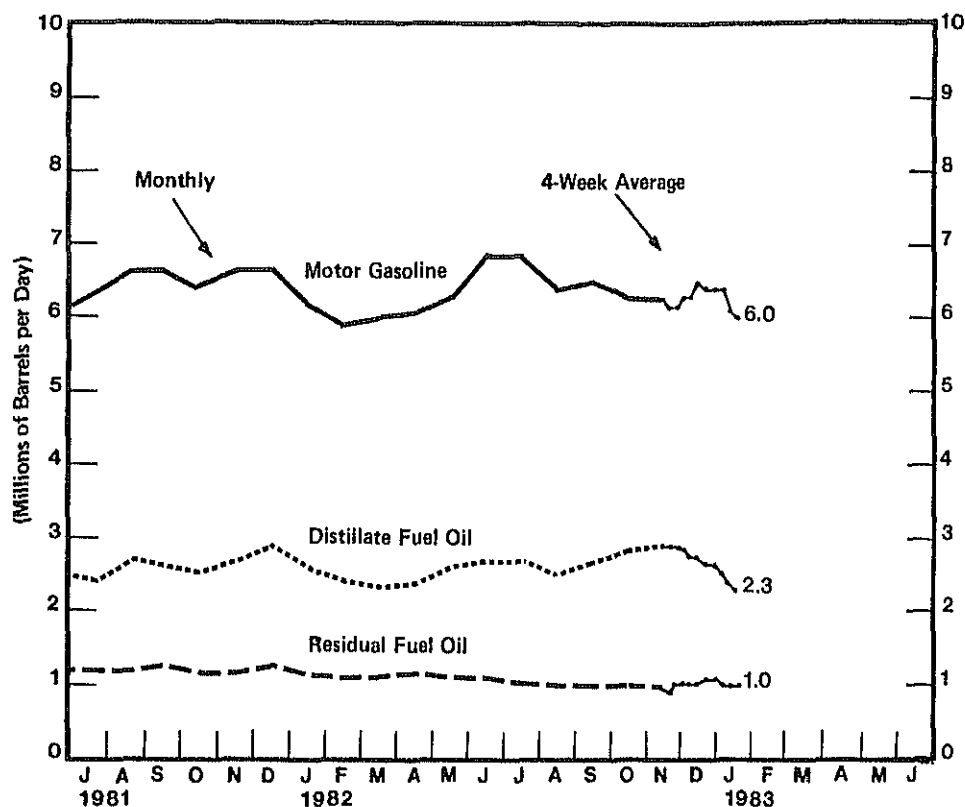
E=Estimate based on most recent monthly data.

<sup>1</sup> Percentage utilization is calculated as gross inputs divided by operable capacity. See glossary. Percentages are calculated using unrounded numbers.

Sources: • Monthly Data 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly,"

• Four Week Averages Estimates based on EIA weekly data.

**U. S. Refinery Production by Product<sup>1</sup>**  
(Millions of Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
Motor Gasoline	6.7	6.3	6.2	6.1	6.1	6.2	6.4	6.6	6.6	6.4	6.6	6.6
Jet Fuel	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	1.0	0.9
Distillate Fuel Oil	3.0	2.8	2.5	2.4	2.5	2.5	2.4	2.7	2.6	2.5	2.7	2.9
Residual Fuel Oil	1.6	1.6	1.4	1.3	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.3
<b>1982</b>												
Motor Gasoline	6.2	5.9	6.0	6.1	6.3	6.8	6.8	6.4	6.5	6.3	6.3	
Jet Fuel	0.9	1.0	1.1	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	
Distillate Fuel Oil	2.6	2.4	2.3	2.4	2.6	2.7	2.7	2.5	2.7	2.8	2.9	
Residual Fuel Oil	1.2	1.1	1.1	1.2	1.1	1.1	1.0	1.0	1.0	1.0	1.0	
<b>Average for Four-Week Period Ending:</b>												
<b>1982/1983</b>	<b>12/3</b>	<b>12/10</b>	<b>12/17</b>	<b>12/24</b>	<b>12/31</b>	<b>1/7</b>	<b>1/14</b>	<b>1/21</b>	<b>1/28</b>	<b>2/4</b>		
Motor Gasoline	6.2	6.2	6.3	6.3	6.5	6.4	6.4	6.4	6.1	6.0		
Jet Fuel	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0		
Distillate Fuel Oil	2.9	2.9	2.8	2.7	2.7	2.6	2.6	2.5	2.4	2.3		
Residual Fuel Oil	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0		

<sup>1</sup> Production statistics represent net production (i.e., refinery output minus refinery input)

Source: • Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly,"

• Four-Week Averages: Estimates based on EIA weekly data.



**Stocks of Crude Oil and Petroleum Products,<sup>1</sup> U.S. Totals**  
(Millions of Barrels)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
Crude Oil <sup>2</sup>	374.0	378.2	393.0	397.5	393.7	384.7	385.9	362.0	356.0	364.0	366.0	363.5
Motor Gasoline	276.1	284.0	285.0	272.1	258.3	241.6	227.7	233.3	237.1	236.1	248.4	253.0
Finished Gasoline	226.3	229.6	232.1	223.2	212.6	194.0	185.7	188.6	190.7	190.5	200.6	203.4
Blending Components	49.8	54.4	52.9	48.9	45.7	47.6	42.0	44.7	46.4	45.6	47.8	49.6
Jet Fuel	39.5	38.6	39.0	40.4	44.5	44.9	44.8	44.7	43.1	42.7	42.0	41.1
Distillate Fuel	179.4	172.5	164.3	164.6	171.8	179.9	186.3	200.2	207.3	201.2	200.1	191.5
Residual Fuel	82.1	77.9	74.8	72.9	78.1	69.4	69.3	74.9	80.2	79.9	81.4	78.0
Unfinished Oils	121.5	122.3	126.2	126.5	126.3	126.1	126.1	124.5	118.4	119.5	116.4	111.3
Other Oils	202.7	199.1	198.1	206.5	208.5	220.5	225.4	232.8	234.6	226.7	224.6	214.9
Total Stocks (Excl. SPR)	1,275.3	1,272.5	1,280.3	1,280.5	1,288.3	1,267.1	1,265.4	1,272.5	1,276.7	1,270.0	1,278.9	1,253.3
Crude Oil in SPR	112.5	116.1	120.9	134.2	150.1	163.1	173.1	184.7	199.2	214.8	222.5	230.3
Total Stocks (Incl. SPR)	1,387.8	1,388.5	1,401.2	1,414.8	1,438.3	1,430.2	1,438.5	1,457.2	1,476.0	1,484.8	1,501.5	1,483.6
<b>1982</b>												
Crude Oil <sup>2</sup>	370.9	371.0	365.7	355.5	348.5	342.8	344.6	351.8	339.9	350.7	356.0	
Motor Gasoline	262.1	262.1	247.9	222.8	214.9	219.7	226.8	226.0	233.8	234.3	230.0	
Finished Gasoline	214.1	213.3	198.8	179.1	173.7	177.8	182.9	184.8	191.3	192.1	189.3	
Blending Components	47.9	48.8	49.1	43.3	41.2	41.9	43.1	41.1	42.5	42.3	40.7	
Jet Fuel	37.2	37.0	42.5	44.1	41.8	40.1	39.8	40.8	39.7	40.9	40.5	
Distillate Fuel	166.0	146.7	127.7	108.8	114.5	124.5	148.1	158.9	161.2	170.2	185.6	
Residual Fuel Oil	68.2	58.1	57.3	53.6	59.1	60.5	69.0	62.8	61.8	63.6	66.4	
Unfinished Oils	116.7	116.9	115.8	118.9	117.9	117.5	117.8	116.0	117.8	113.3	111.7	
Other Oils	204.6	198.4	195.4	190.5	191.7	192.9	191.5	187.6	182.5	176.1	174.9	
Total Stocks (Excl. SPR)	1,225.6	1,190.2	1,152.4	1,094.3	1,088.4	1,098.1	1,126.8	1,133.8	1,138.6	1,149.1	1,165.2	
Crude Oil in SPR	235.3	241.2	248.5	255.5	261.0	264.1	267.2	273.6	277.9	284.6	290.0	
Total Stocks (Incl. SPR)	1,460.9	1,431.4	1,400.9	1,349.9	1,349.4	1,362.3	1,393.9	1,407.4	1,414.5	1,433.7	1,455.2	
<b>Week Ending:</b>												
<b>1982/1983</b>	<b>12/3</b>	<b>12/10</b>	<b>12/17</b>	<b>12/24</b>	<b>12/31</b>	<b>1/7</b>	<b>1/14</b>	<b>1/21</b>	<b>1/28</b>	<b>2/4</b>		
Crude Oil <sup>2</sup>	356.5	362.0	363.0	359.1	354.2	349.2	361.5	356.7	360.1	353.3		
Motor Gasoline	225.5	227.4	230.0	231.7	236.5	240.9	242.6	242.8	242.9	242.7		
Finished Gasoline	NA	NA	NA	NA	NA	201.4	202.8	202.7	202.2	200.8		
Blending Components	NA	NA	NA	NA	NA	39.5	39.8	40.0	40.7	41.9		
Jet Fuel	40.8	39.4	40.2	38.1	37.7	37.4	38.2	37.3	38.3	38.6		
Distillate Fuel Oil	183.7	186.0	180.5	182.2	181.3	177.8	175.1	170.7	162.9	157.9		
Residual Fuel Oil	65.0	66.9	68.0	67.5	68.4	68.1	63.6	62.1	55.3	56.8		
Unfinished Oils	110.8	109.3	107.6	106.1	104.5	104.2	105.9	108.4	107.9	107.7		
Other Oils <sup>3</sup>	E175.3	E173.2	E170.6	E167.1	E162.3	E159.8	E157.3	E154.7	E153.7	E151.5		
Total Stocks (Excl. SPR)	1,157.5	1,164.2	1,159.8	1,151.8	1,145.0	1,135.4	1,144.1	1,132.7	1,121.1	1,108.5		
Crude Oil in SPR	290.0	291.5	291.7	292.5	293.2	294.8	295.4	296.7	298.4	300.9		
Total Stocks (Incl. SPR)	1,447.5	1,455.7	1,451.5	1,444.3	1,438.2	1,430.2	1,439.6	1,429.3	1,419.5	1,409.4		

E=Estimated. See definition of "Stock Change (Refined Products)" for explanation of other oils estimate methodology.  
NA=Not Available from 1982 weekly data forms. See Appendix D.

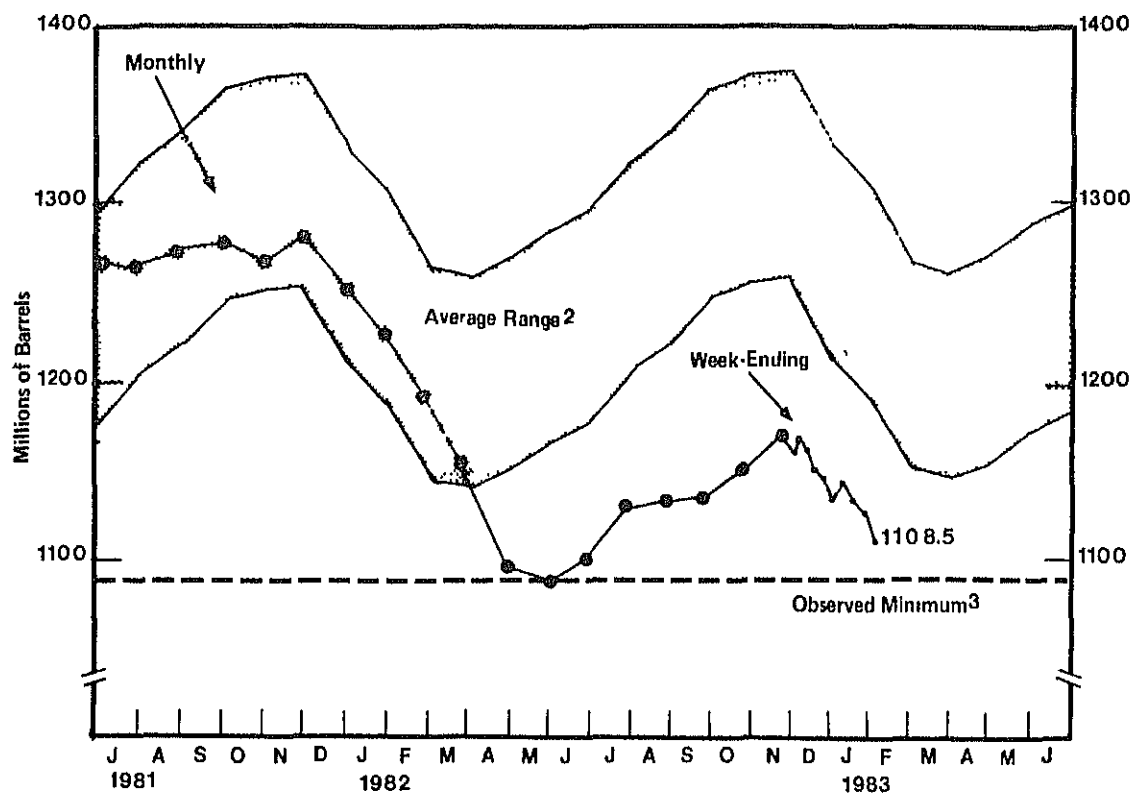
1 Product stocks include those stocks held at refineries, in pipelines, and at major bulk terminals. Stocks held at natural gas processing plants are included in "Other Oils" and in totals. All stock levels are as of the end of the period.

2 Crude oil stocks include those stocks held at refineries, in pipelines, in lease tanks, and in transit to refineries, and do not include those held in the Strategic Petroleum Reserve.

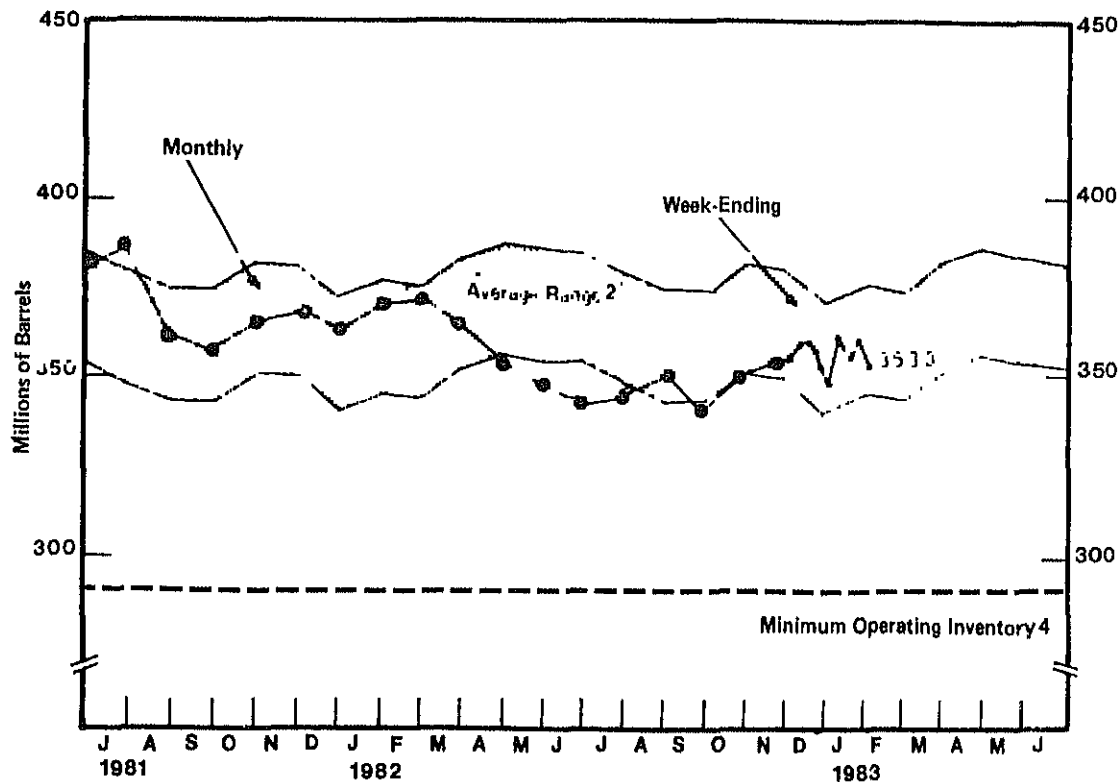
3 Weekly totals for stocks of other oils are estimated using monthly data. Beginning with the WPSR issue of January 14, kerosene has been added to stocks of other oils. Other oils include kerosene, aviation gasoline, natural gas liquids including ethane, petrochemical feedstocks, special naphthas, lube oil, wax, coke, asphalt, road oil, and miscellaneous oils.

Source: • Monthly Data 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."  
• Week-Ending Stocks: Estimates based on EIA weekly data.

**Stocks of Crude Oil<sup>1</sup> and Petroleum Products, U.S. Total  
(Millions of Barrels)**



**Stocks of Crude Oil<sup>1</sup>, U.S. Total  
(Millions of Barrels)**



<sup>1</sup> Excludes stocks held in the Strategic Petroleum Reserve and includes crude oil in transit to refineries.

<sup>2</sup> Average level width of average range, and observed minimum are based on three years of monthly data: July 1979-June 1982. The seasonal pattern is based on seven years of monthly data: January 1975-December 1981. See Appendix B for further explanation.

<sup>3</sup> The observed minimum for total stocks in the last three year period July 1979-June 1982, was 1088.4 million barrels. It occurred in May 1982. See Appendix B for further explanation.

<sup>4</sup> The National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for crude oil to be 290 million barrels. See Appendix B for further explanation.

Source: • Ranges and Seasonal Patterns: 1975-1980, EIA, "Petroleum Statement, Annual (Final Summary)," 1981, EIA, "Petroleum Supply Annual,"

• Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly,"

• Week-Ending Stocks: Estimates based on EIA weekly data.

**Stocks of Motor Gasoline by Petroleum Administration for Defense District  
(Millions of Barrels)**

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
Finished Gasoline	226.3	229.6	232.1	223.2	212.6	194.0	185.7	188.6	190.7	190.5	200.6	203.4
Blending Components	49.8	54.4	52.9	48.9	45.7	47.6	42.0	44.7	46.4	45.6	47.8	49.5
Total Gasoline <sup>1</sup>	276.1	284.0	285.0	272.1	258.3	241.6	227.7	233.3	237.1	236.1	248.4	253.0
East Coast (PAD 1)	71.7	74.2	79.5	77.9	73.1	69.5	62.7	64.3	69.6	69.6	69.7	69.5
Midwest (PAD 2)	86.0	90.4	89.7	84.2	80.1	72.4	65.9	66.7	65.3	66.0	69.2	72.6
Gulf Coast (PAD 3)	77.2	79.6	78.5	76.2	72.2	65.9	64.0	68.6	68.5	65.0	70.6	69.5
Rocky Mountain (PAD 4)	9.7	10.3	10.2	9.4	8.6	7.4	6.5	6.0	5.8	6.3	7.7	8.5
West Coast (PAD 5)	31.5	29.5	26.9	24.4	24.3	26.3	28.6	27.8	27.9	29.2	31.2	32.9
<b>1982</b>												
Finished Gasoline	214.1	213.3	198.8	179.1	173.7	177.8	182.9	184.8	191.3	192.1	189.3	
Blending Components	47.9	48.8	49.1	43.3	41.2	41.9	43.1	41.1	42.5	42.3	40.7	
Total Gasoline <sup>1</sup>	262.1	262.1	247.9	222.8	214.9	219.7	226.8	226.0	233.8	234.3	230.0	
East Coast (PAD 1)	71.7	69.6	67.1	61.7	63.6	66.0	63.1	62.4	63.5	63.5	66.1	
Midwest (PAD 2)	78.6	79.1	74.8	63.2	56.8	56.6	62.6	65.8	69.5	67.0	64.0	
Gulf Coast (PAD 3)	70.2	69.2	68.0	63.4	63.6	65.0	66.1	64.4	67.4	69.8	65.5	
Rocky Mountain (PAD 4)	9.6	9.9	10.1	8.9	7.7	6.5	5.8	5.5	5.7	6.4	7.1	
West Coast (PAD 5)	32.0	34.3	27.8	25.5	23.3	25.7	28.4	27.7	27.7	27.6	27.2	
<b>Week Ending:</b>												
<b>1982/1983</b>	<b>12/3</b>	<b>12/10</b>	<b>12/17</b>	<b>12/24</b>	<b>12/31</b>	<b>1/7</b>	<b>1/14</b>	<b>1/21</b>	<b>1/28</b>	<b>2/4</b>		
Finished Gasoline	NA	NA	NA	NA	NA	201.4	202.8	202.7	202.2	200.8		
Blending Components	NA	NA	NA	NA	NA	39.5	39.8	40.0	40.7	41.9		
Total Gasoline <sup>1</sup>	225.5	227.4	230.0	231.7	236.5	240.9	242.6	242.8	242.9	242.7		
East Coast (PAD 1)	64.7	65.8	67.6	67.4	68.0	67.3	66.7	67.4	68.2	67.2		
Midwest (PAD 2)	66.6	67.0	67.6	67.5	67.5	71.9	73.3	73.7	76.5	75.2		
Gulf Coast (PAD 3)	61.8	62.0	61.0	62.1	65.7	64.9	66.3	66.1	62.2	63.9		
Rocky Mountain (PAD 4)	6.8	7.2	7.8	8.0	8.3	8.8	8.6	8.7	9.3	9.8		
West Coast (PAD 5)	26.6	25.3	25.9	26.5	27.4	28.0	27.8	26.8	26.7	26.7		

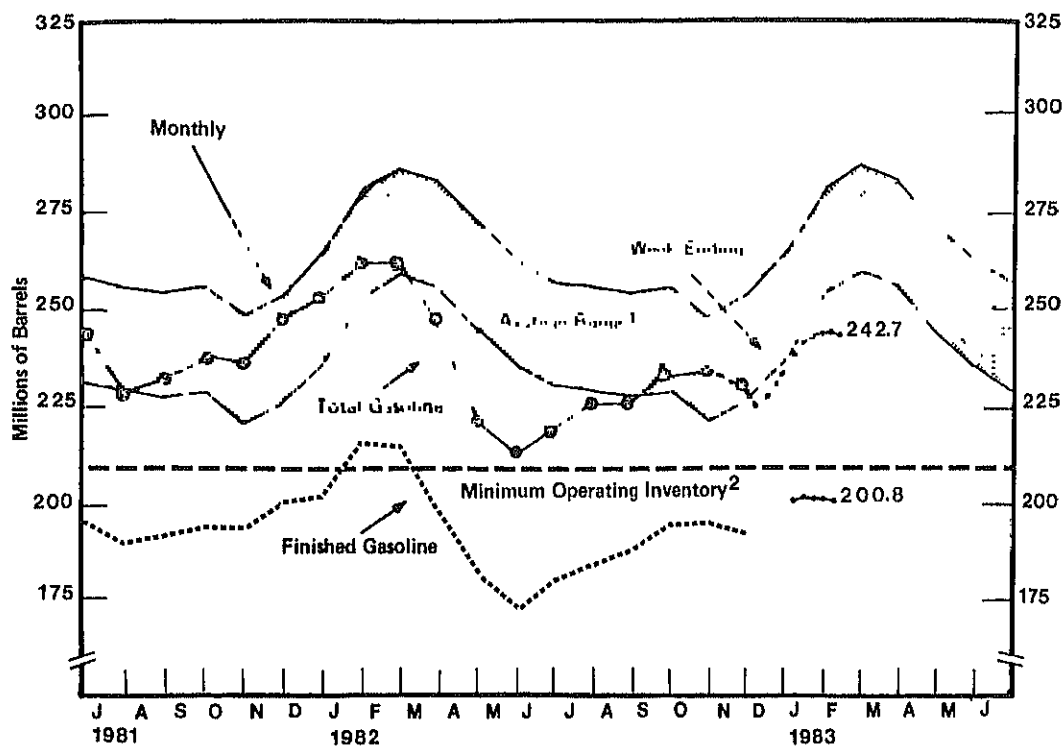
NA=Not Available from 1982 weekly data forms

<sup>1</sup> PAD district data may not add to total due to independent rounding

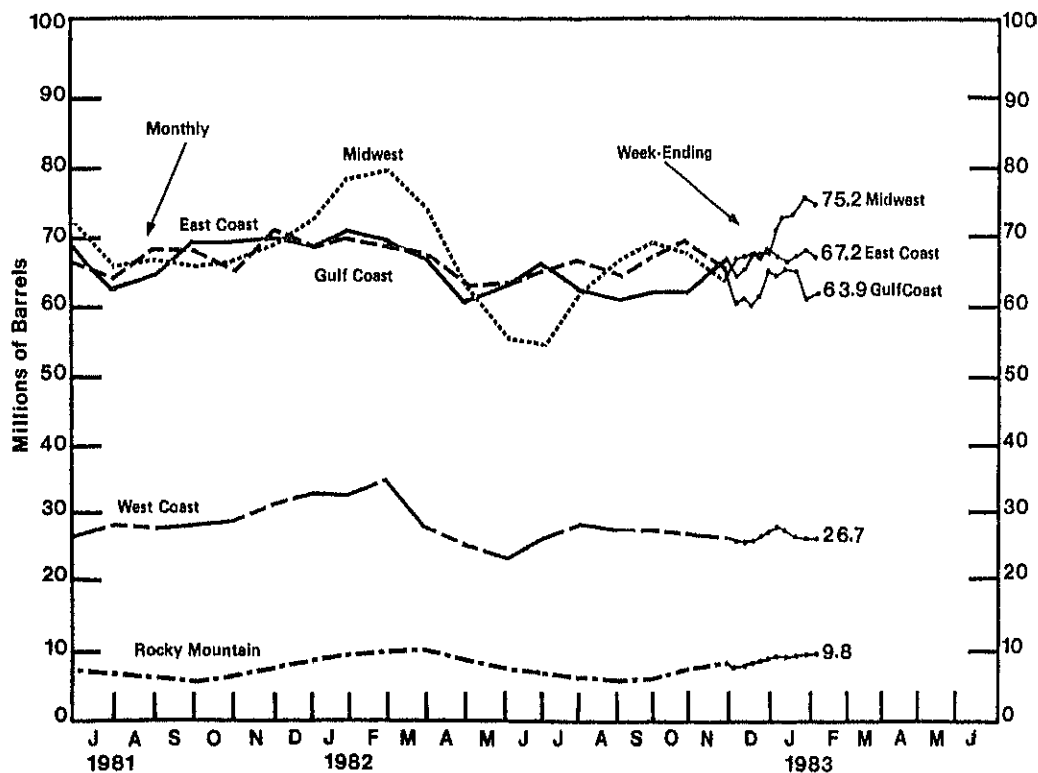
Source: • Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."

• Week-Ending Stocks: Estimates based on EIA weekly data.

**Stocks of Motor Gasoline, U.S. Total  
(Millions of Barrels)**



**Stocks of Motor Gasoline by Petroleum Administration for Defense District  
(Millions of Barrels)**



<sup>1</sup> Average level and width of average range for total motor gasoline are based on three years of monthly data: July 1970–June 1982. The seasonal pattern is based on six years of monthly data: January 1976–December 1976 and January 1978–December 1981. See Appendix B for further explanation.

<sup>2</sup> The National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for motor gasoline to be 210 million barrels. See Appendix B for further explanation.

Sources: • Ranges and Seasonal Patterns 1976–1980, EIA, "Petroleum Statement, Annual (Final Summary)," 1981, EIA, "Petroleum Supply Annual."

• Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, "Petroleum Supply Monthly."

• Week-Ending Stocks: Estimates based on EIA weekly data.

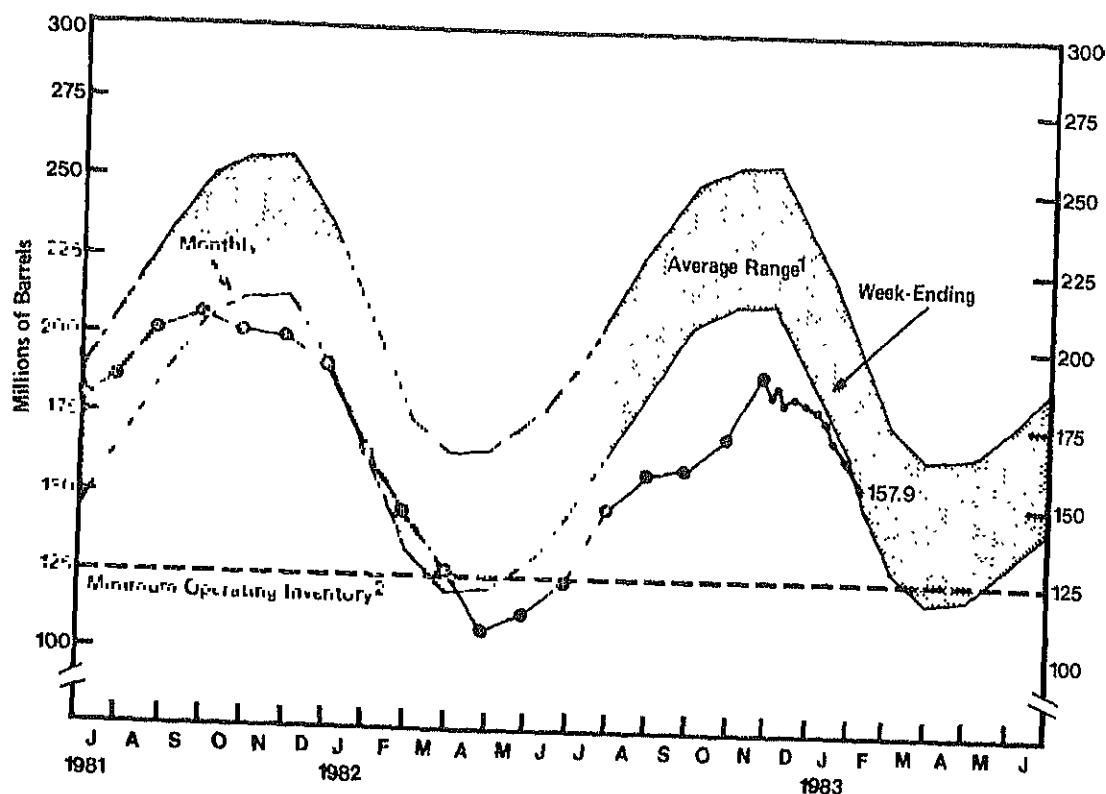
**Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District  
(Millions of Barrels)**

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
<b>Total U.S.<sup>1</sup></b>	179.4	172.5	164.3	164.6	171.8	179.9	186.3	200.2	207.3	201.2	200.1	191.5
East Coast (PAD 1)	71.9	69.8	64.7	64.4	68.2	73.8	81.3	86.3	92.0	94.8	96.0	87.4
Midwest (PAD 2)	57.7	56.1	52.5	52.4	50.5	48.7	49.8	54.1	54.3	51.0	51.6	50.0
Gulf Coast (PAD 3)	34.0	32.3	32.4	34.7	39.2	42.9	40.7	44.5	44.8	39.8	36.7	35.5
Rocky Mountain (PAD 4)	3.4	3.3	3.3	2.9	3.2	3.4	3.7	3.8	3.6	3.3	3.6	3.9
West Coast (PAD 5)	12.4	11.1	11.4	10.3	10.7	11.1	10.8	11.4	12.5	12.3	12.3	14.7
<b>1982</b>												
<b>Total U.S.<sup>1</sup></b>	166.0	146.7	127.7	108.8	114.5	124.5	148.1	158.9	161.2	170.2	185.6	
East Coast (PAD 1)	69.2	58.4	44.9	35.1	39.2	44.2	57.4	63.9	68.0	75.7	88.7	
Midwest (PAD 2)	47.4	43.8	40.2	31.2	31.2	34.1	42.6	45.5	45.5	44.3	45.3	
Gulf Coast (PAD 3)	30.8	26.7	27.5	28.2	31.0	32.5	34.2	35.8	34.1	37.0	36.9	
Rocky Mountain (PAD 4)	4.1	3.9	3.7	3.1	2.8	3.0	3.4	3.5	3.5	3.5	3.5	
West Coast (PAD 5)	14.5	13.9	11.4	11.1	10.3	10.7	10.6	10.2	10.1	9.6	11.3	
<b>Week Ending:</b>												
<b>1982/1983</b>	<b>12/3</b>	<b>12/10</b>	<b>12/17</b>	<b>12/24</b>	<b>12/31</b>	<b>1/7</b>	<b>1/14</b>	<b>1/21</b>	<b>1/28</b>	<b>2/4</b>		
<b>Total U.S.<sup>1</sup></b>	183.7	186.0	180.5	182.2	181.3	177.8	175.1	170.7	162.9	157.9		
East Coast (PAD 1)	88.3	88.3	83.3	81.7	81.7	77.2	75.9	72.8	66.9	63.3		
Midwest (PAD 2)	46.2	47.2	46.5	48.7	49.3	50.5	50.0	49.7	49.6	48.5		
Gulf Coast (PAD 3)	35.4	35.8	35.4	36.2	33.9	33.6	32.7	31.8	30.6	30.4		
Rocky Mountain (PAD 4)	3.4	3.3	3.5	3.6	3.9	3.7	4.0	4.0	4.0	4.2		
West Coast (PAD 5)	10.4	11.4	11.9	11.9	12.6	12.7	12.4	12.5	11.8	11.5		

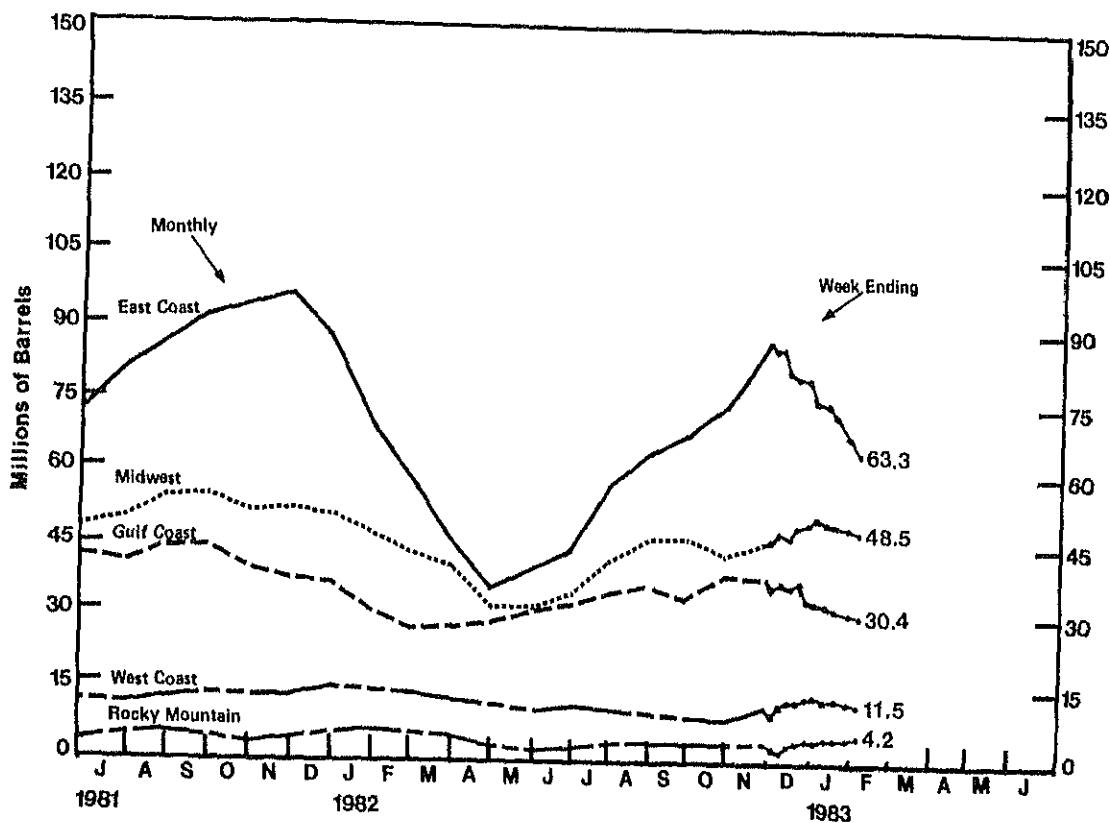
<sup>1</sup> PAD district data may not add to total due to independent rounding

Source: • Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly"  
• Week Ending Stocks: Estimates based on EIA weekly data

# Stocks of Distillate Fuel Oil, U.S. Total (Millions of Barrels)



## Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (Millions of Barrels)



1 Average level and width of average range are based on three years of monthly data. July 1979-June 1982. The seasonal pattern is based on seven years of monthly data. January 1976-December 1981. See Appendix B for further explanation.  
 2 The National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for distillate fuel oil to be 126 million barrels. See Appendix B for further explanation.  
 Source: • Ranges and Seasonal Patterns 1976-1980, EIA, "Petroleum Statement Annual (Final Summary)." 1981, EIA, "Petroleum Supply Annual."  
 • Monthly data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."  
 • Week-Ending Stocks: Estimates based on EIA weekly data

**Stocks of Residual Fuel Oil by Petroleum Administration for Defense District  
(Millions of Barrels)**

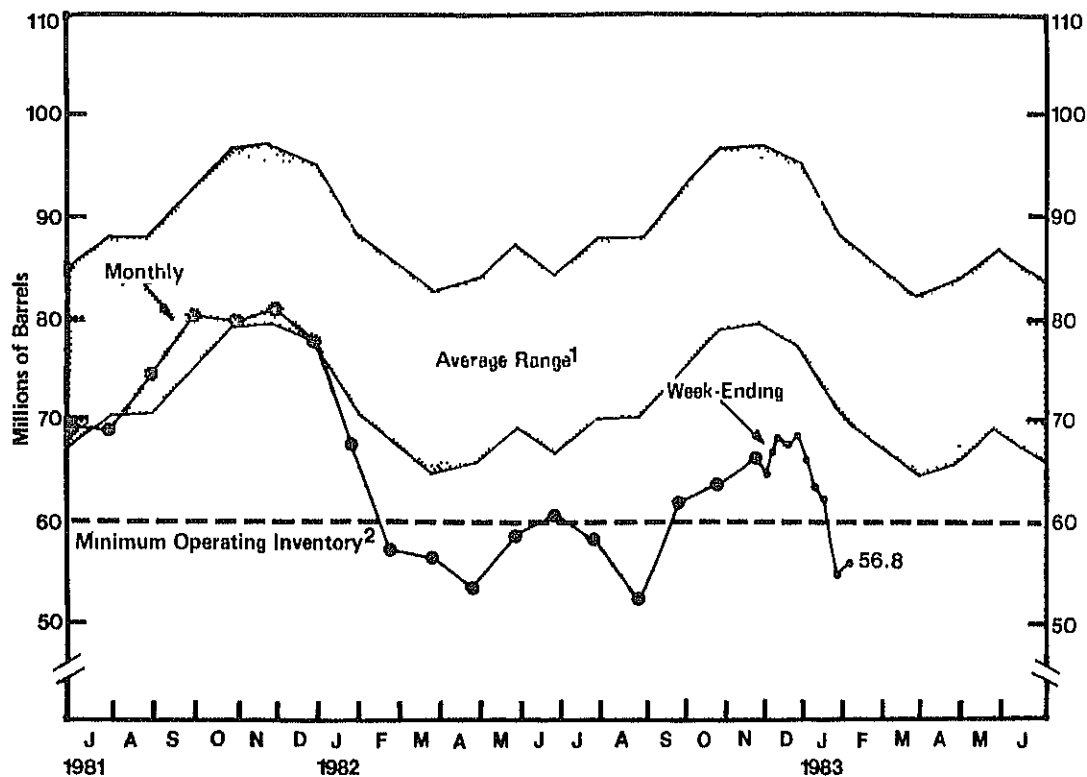
Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
<b>Total U.S.<sup>1</sup></b>	82.1	77.9	74.8	72.9	78.1	69.4	69.3	74.9	80.2	79.9	81.4	78.0
East Coast (PAD 1)	39.0	38.5	37.3	36.3	38.2	33.6	33.0	34.4	40.0	40.4	43.0	40.1
Midwest (PAD 2)	9.2	9.0	7.9	7.3	7.1	7.0	7.7	8.1	8.5	8.0	8.2	8.3
Gulf Coast (PAD 3)	21.8	19.7	19.4	19.1	21.7	17.0	17.4	21.2	20.4	20.4	19.7	18.7
Rocky Mountain (PAD 4)	0.8	0.7	0.6	0.5	0.6	0.6	0.5	0.6	0.7	0.7	0.7	0.7
West Coast (PAD 5)	11.4	10.1	9.7	9.7	10.5	11.2	10.7	10.7	10.7	10.4	9.8	10.2
<b>1982</b>												
<b>Total U.S.<sup>1</sup></b>	68.2	58.1	57.3	53.6	59.1	60.5	59.0	52.8	61.8	63.6	66.4	
East Coast (PAD 1)	32.2	24.9	24.8	23.5	28.3	28.2	27.1	23.1	29.0	32.8	36.4	
Midwest (PAD 2)	7.7	7.3	7.0	6.2	6.0	5.7	5.7	5.3	5.8	5.1	5.0	
Gulf Coast (PAD 3)	17.4	14.4	14.7	13.5	14.9	17.1	16.4	15.6	16.2	15.6	16.1	
Rocky Mountain (PAD 4)	0.6	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	
West Coast (PAD 5)	10.2	11.0	10.3	9.9	9.4	9.2	9.3	8.4	10.4	9.6	8.4	
<b>Week Ending:</b>												
<b>1982/1983</b>	<b>12/3</b>	<b>12/10</b>	<b>12/17</b>	<b>12/24</b>	<b>12/31</b>	<b>1/7</b>	<b>1/14</b>	<b>1/21</b>	<b>1/28</b>	<b>2/4</b>		
<b>Total U.S.<sup>1</sup></b>	65.0	66.9	68.0	67.5	68.4	66.1	63.6	62.1	55.3	56.8		
East Coast (PAD 1)	35.5	36.6	35.9	34.0	34.5	34.0	32.4	30.7	26.3	26.6		
Midwest (PAD 2)	4.7	4.8	5.0	5.1	6.1	5.7	5.9	6.0	5.3	5.2		
Gulf Coast (PAD 3)	16.1	16.3	17.9	18.9	18.1	16.8	15.9	15.4	14.5	16.1		
Rocky Mountain (PAD 4)	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7		
West Coast (PAD 5)	8.1	8.5	8.5	8.9	9.1	8.8	8.7	9.5	8.6	8.2		

<sup>1</sup> PAD district data may not add to total due to independent rounding.

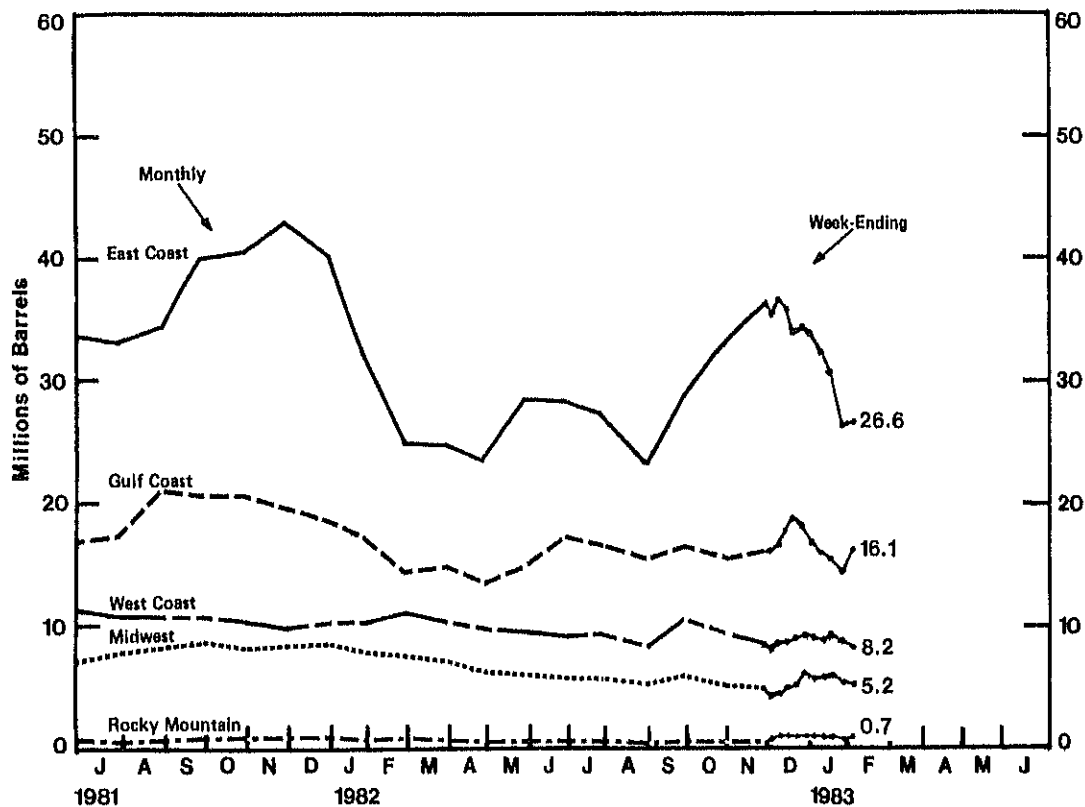
Source: • Monthly Data 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."

• Week-Ending Stocks Estimates based on EIA weekly data.

# Stocks of Residual Fuel Oil, U.S. Total (Millions of Barrels)



## Stocks of Residual Fuel Oil by Petroleum Administration for Defense District (Millions of Barrels)



1 Average level and width of average range are based on three years of monthly data: July 1979-June 1982. The seasonal pattern is based on seven years of monthly data: January 1975-December 1981. See Appendix B for further explanation.

2 The National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for residual fuel oil to be 60 million barrels. See Appendix B for further explanation.

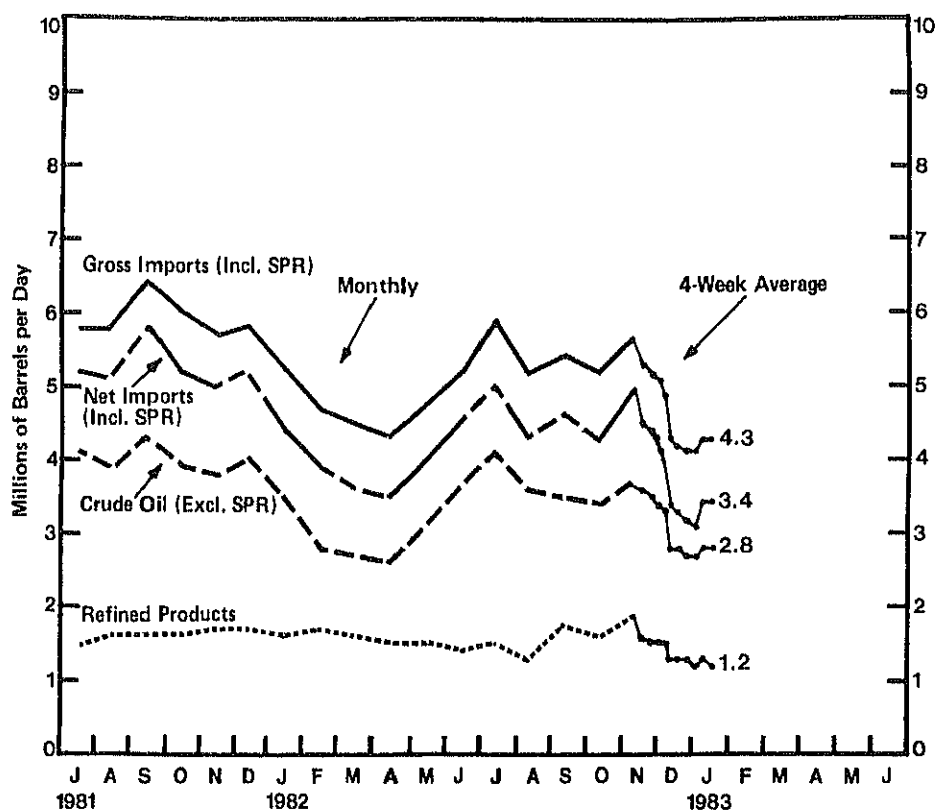
Source: • Ranges and Seasonal Patterns 1975-1980, EIA, "Petroleum Statement Annual (Final Summary)," 1981, EIA, "Petroleum Supply Annual."

• Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."

• Week-Ending Stocks: Estimates based on EIA weekly data.



**Imports of Crude Oil and Petroleum Products  
(Millions of Barrels per Day)**



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
Crude Oil (Excl. SPR)	4.8	4.8	4.4	4.1	3.9	3.7	4.1	3.9	4.3	3.9	3.8	4.0
SPR	0.1	0.1	0.1	0.3	0.4	0.3	0.2	0.3	0.4	0.5	0.3	0.2
Refined Products	1.9	1.9	1.5	1.3	1.5	1.4	1.5	1.6	1.6	1.6	1.7	1.7
Gross Imports (Incl. SPR)	6.8	6.8	6.0	5.7	5.8	5.4	5.8	5.8	6.4	6.0	5.7	5.8
Total Exports <sup>1</sup>	0.6	0.6	0.6	0.6	0.6	0.4	0.6	0.6	0.5	0.7	0.7	0.7
Net Imports (Incl. SPR)	6.3	6.2	5.4	5.1	5.2	5.0	5.2	5.1	5.8	5.2	5.0	5.2
<b>1982</b>												
Crude Oil (Excl. SPR)	3.5	2.8	2.7	2.6	3.1	3.7	4.1	3.6	3.5	3.4	3.7	
SPR	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	
Refined Products	1.6	1.7	1.6	1.5	1.5	1.4	1.5	1.3	1.8	1.6	1.9	
Gross Imports (Incl. SPR)	5.2	4.7	4.5	4.3	4.8	5.2	5.8	5.2	5.4	5.2	5.7	
Total Exports <sup>1</sup>	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.9	0.8	0.9	0.8	
Net Imports (Incl. SPR)	4.4	3.9	3.6	3.5	4.0	4.5	5.0	4.3	4.6	4.3	4.9	
<b>Average for Four-Week Period Ending:</b>												
<b>1982/1983</b>	<b>12/3</b>	<b>12/10</b>	<b>12/17</b>	<b>12/24</b>	<b>12/31</b>	<b>1/7</b>	<b>1/14</b>	<b>1/21</b>	<b>1/28</b>	<b>2/4</b>		
Crude Oil (Excl. SPR)	3.6	3.5	3.4	3.3	2.8	2.8	2.7	2.7	2.8	2.8		
SPR	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2		
Refined Products	1.6	1.5	1.5	1.5	1.3	1.3	1.3	1.2	1.3	1.2		
Gross Imports (Incl. SPR)	5.3	5.2	5.1	4.9	4.3	4.2	4.1	4.1	4.3	4.3		
Total Exports <sup>1</sup>	E0.8	E0.8	E0.8	E0.8	E0.9	E0.9	E0.9	E0.9	E0.9	E0.9		
Net Imports (Incl. SPR)	4.5	4.4	4.3	4.1	3.4	3.3	3.2	3.1	3.4	3.4		

E=Estimate based on most recent monthly data available.

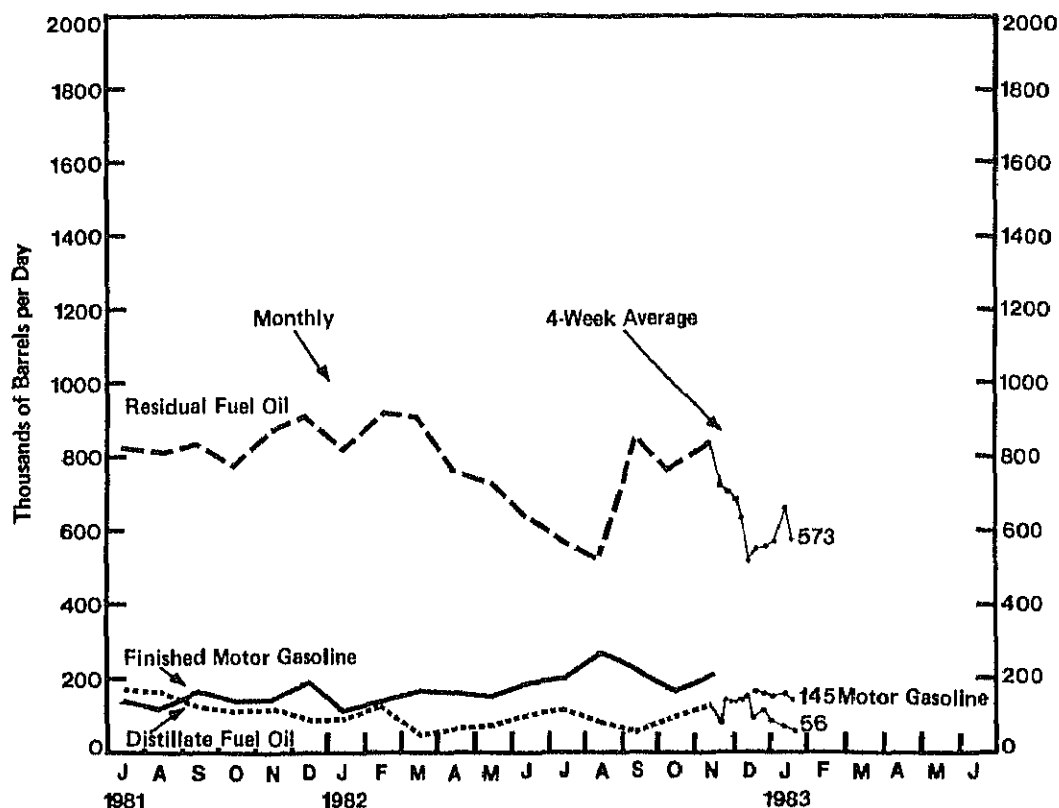
<sup>1</sup> Includes exports of crude oil and refined petroleum products. Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

Sources: • Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."

• Four-Week Averages: Estimates based on EIA weekly data.

Note: Detail data may not add to total due to independent rounding.

**Imports of Petroleum Products by Product**  
(Thousands of Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
Finished Motor Gasoline <sup>1</sup>	138	111	171	186	150	186	151	124	169	147	148	197
Jet Fuel	15	38	76	55	47	68	35	47	46	14	9	7
Distillate Fuel Oil	273	325	147	116	179	225	179	174	129	119	124	95
Residual Fuel Oil	1,015	954	699	584	741	540	830	819	841	786	880	916
Other <sup>2</sup>	453	471	414	389	371	356	327	424	438	514	533	491
<b>1982</b>												
Finished Motor Gasoline <sup>1</sup>	114	133	183	177	163	195	200	284	215	177	206	
Jet Fuel	10	62	39	47	31	3	15	26	30	20	29	
Distillate Fuel Oil	96	130	48	59	74	100	124	79	59	97	141	
Residual Fuel Oil	821	928	910	762	738	643	576	519	871	758	843	
Other <sup>2</sup>	544	489	425	428	464	504	578	428	580	542	644	
<b>Average for Four-Week Period Ending:</b>												
<b>1982/1983</b>	<b>12/3</b>	<b>12/10</b>	<b>12/17</b>	<b>12/24</b>	<b>12/31</b>	<b>1/7</b>	<b>1/14</b>	<b>1/21</b>	<b>1/28</b>	<b>2/4</b>		
Finished Motor Gasoline <sup>1</sup>	NA	NA	NA	NA	NA	158	154	152	157	145		
Jet Fuel	23	24	13	20	14	17	17	26	35	44		
Distillate Fuel Oil	81	145	134	144	152	94	106	88	66	56		
Residual Fuel Oil	724	714	673	629	525	553	563	572	660	573		
Other <sup>2</sup>	NA	NA	NA	NA	NA	483	430	401	399	401		

NA=Not Available from 1982 weekly data forms. See Appendix D.

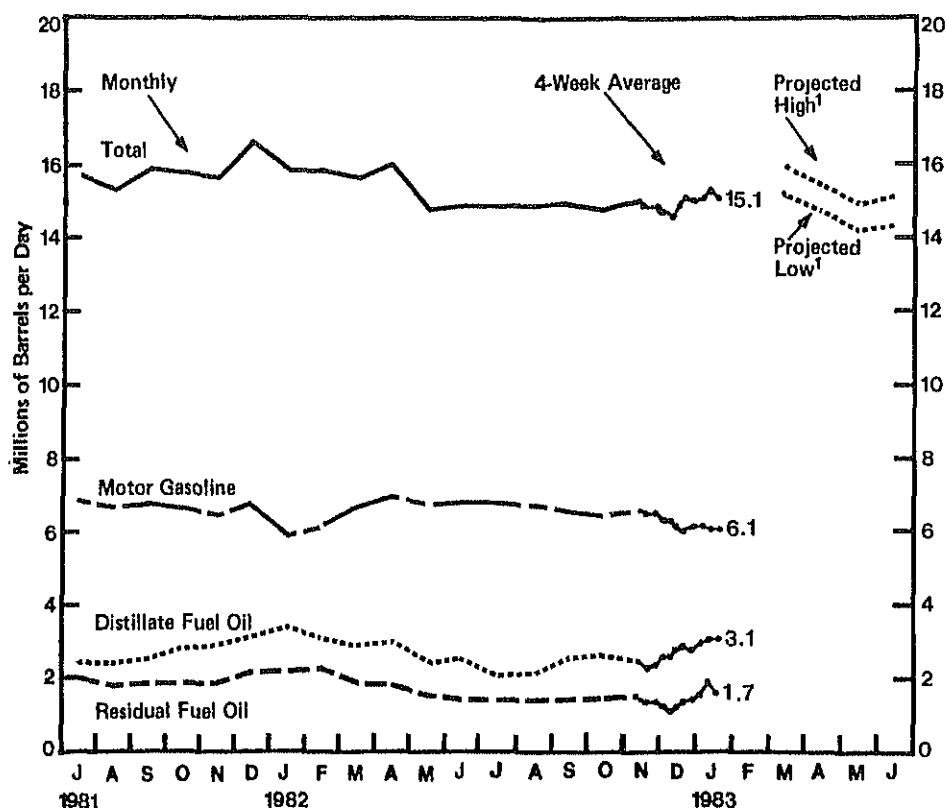
<sup>1</sup> Motor gasoline imports are only finished gasoline imports. The 1981 and 1982 monthly values for motor gasoline imports have been adjusted to exclude motor gasoline blending components. Blending component imports are included in other imports.

<sup>2</sup> Includes imports of kerosene, unfinished oils, motor gasoline blending components, liquefied petroleum gases and other oils.

Source: • Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."

• Four-Week Averages: Estimates based on EIA weekly data.

**Petroleum Products Supplied**  
(Millions of Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
Motor Gasoline	6.4	6.3	6.3	6.6	6.6	7.0	6.8	6.6	6.7	6.6	6.4	6.7
Jet Fuel	1.1	1.0	1.1	1.0	0.9	1.0	1.1	1.0	1.0	0.9	1.0	1.0
Distillate Fuel Oil <sup>2</sup>	4.1	3.4	2.9	2.5	2.4	2.4	2.4	2.4	2.5	2.8	2.9	3.2
Residual Fuel Oil <sup>2</sup>	2.9	2.5	2.1	1.9	1.8	2.0	2.0	1.8	1.9	1.9	1.9	2.3
Other <sup>3</sup>	3.9	3.8	3.5	3.4	3.7	3.7	3.4	3.5	3.8	3.6	3.4	3.4
Total	18.4	17.0	15.9	15.4	15.4	16.1	15.7	15.3	15.9	15.8	15.6	16.6
<b>1982</b>												
Motor Gasoline	5.9	6.1	6.6	6.9	6.7	6.8	6.8	6.7	6.5	6.4	6.6	
Jet Fuel	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Distillate Fuel Oil <sup>2</sup>	3.4	3.2	2.9	3.0	2.4	2.5	2.1	2.2	2.5	2.6	2.5	
Residual Fuel Oil <sup>2</sup>	2.2	2.3	1.9	1.9	1.6	1.5	1.5	1.5	1.5	1.5	1.6	
Other <sup>3</sup>	3.4	3.2	3.2	3.2	3.1	3.1	3.4	3.4	3.4	3.4	3.4	
Total	15.9	15.9	15.6	16.0	14.8	14.9	14.8	14.8	14.9	14.8	15.0	
<b>Average for Four-Week Period Ending:</b>												
<b>1982/1983</b>	<b>12/3</b>	<b>12/10</b>	<b>12/17</b>	<b>12/24</b>	<b>12/31</b>	<b>1/7</b>	<b>1/14</b>	<b>1/21</b>	<b>1/28</b>	<b>2/4</b>		
Motor Gasoline	6.5	6.5	6.3	6.3	6.2	6.0	6.2	6.2	6.1	6.1		
Jet Fuel	1.0	1.1	0.9	1.1	1.1	1.0	1.1	1.1	1.0	1.0		
Distillate Fuel Oil <sup>2</sup>	2.3	2.4	2.6	2.6	2.8	2.9	2.8	3.0	3.1	3.1		
Residual Fuel Oil <sup>2</sup>	1.4	1.4	1.3	1.2	1.3	1.4	1.5	1.6	1.9	1.7		
Other <sup>3</sup>	3.5	3.5	3.6	3.4	3.5	3.7	3.5	3.3	3.2	3.2		
Total	14.8	14.8	14.7	14.6	14.9	15.1	15.0	15.1	15.3	15.1		

<sup>1</sup> Projected. See Appendix C for explanation of derivation of values.

<sup>2</sup> Beginning in 1983, crude oil burned as residual fuel oil or distillate fuel oil is no longer reported to EIA and therefore is not included in 1983 product supplied calculations for these fuels. The product supplied series for distillate and residual fuel oil for 1981 and 1982 shown on this page are the values published in 1981 and 1982 EIA publications and include crude oil transfers (about 60 thousand barrels per day for residual fuel oil and 10 thousand barrels per day for distillate fuel oil). See Appendix D for further explanation.

<sup>3</sup> Other products supplied includes kerosene as well as products previously included.

Source: • Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."

• Four-Week Averages: Estimates based on EIA weekly data

• Projections: EIA, Office of Energy Markets and End Use (November 1982).

**Average Retail Selling Prices  
Motor Gasoline and Residential Heating Oil  
(Cents per Gallon, Including Taxes)**

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
<b>Motor Gasoline</b>												
Leaded Premium	133.8	141.0	144.9	145.1	144.7	144.6	144.6	144.4	145.6	145.7	146.2	146.0
Leaded Regular	123.8	132.1	135.2	134.4	133.3	132.4	131.5	131.0	130.5	129.9	129.7	129.3
Unleaded Regular	129.8	138.2	141.7	141.2	140.0	139.1	138.2	137.6	137.6	137.1	136.9	136.5
All-types	126.9	135.3	138.8	138.1	137.0	136.2	135.3	134.8	135.8	135.3	135.1	134.8
<b>Residential Heating Oil</b>	114.4	123.4	125.5	123.9	122.7	120.9	121.0	119.4	119.7	118.8	120.8	122.0
<b>1982</b>												
<b>Motor Gasoline</b>												
Leaded Premium	145.6	143.8	140.7	136.8	137.9	140.8	145.0	145.8	144.1	141.3	141.2	137.1
Leaded Regular	128.5	126.0	120.6	114.8	116.6	124.2	126.3	125.4	123.6	121.9	120.7	118.1
Unleaded Regular	135.8	133.4	128.4	122.5	123.7	130.9	133.1	132.3	130.8	129.5	128.3	126.0
All-types	134.1	131.8	126.8	121.0	122.4	129.6	131.8	131.0	129.5	128.0	126.8	124.4
<b>Residential Heating Oil</b>	122.0	120.7	115.3	113.2	114.3	116.2	115.8	115.9	115.2	119.6	P121.9	

P=Preliminary.

Note: Motor gasoline data include prices from self-service stations. Beginning with September 1981, the Bureau of Labor Statistics has changed the weights used in the calculation of average motor gasoline prices. In the "all types" category gasoline is now included, and unleaded premium is weighted more heavily.

Source: • Motor Gasoline—Bureau of Labor Statistics. See definitions for descriptions of survey.  
• Residential Heating Oil—Form EIA-9A, "No. 2 Distillate Price Monitoring Report."

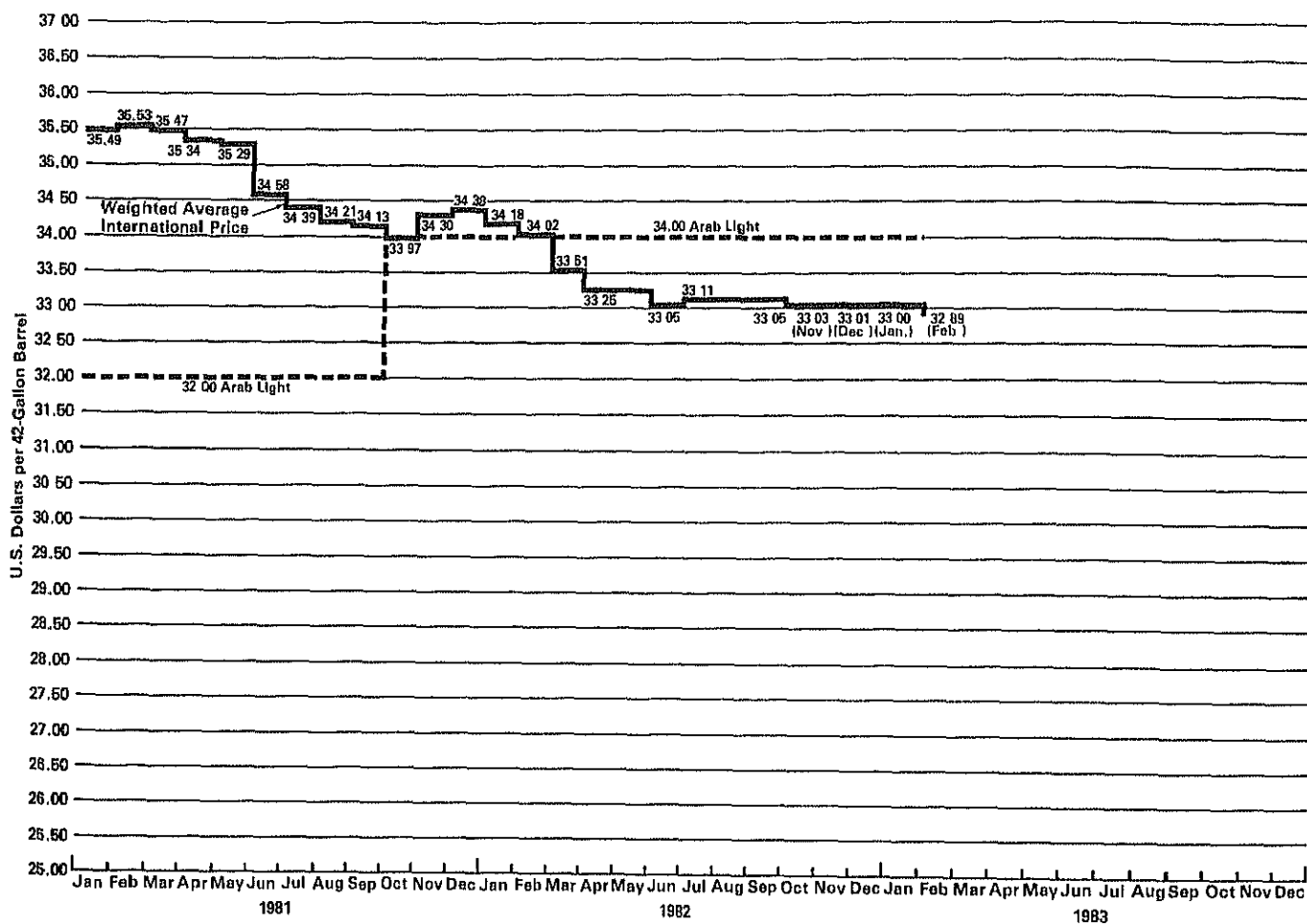
**Refiner Acquisition Cost of Crude Oil  
(Dollars per Barrel)**

Year/Type	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
<b>1981</b>												
<b>Domestic</b>	32.71	36.27	36.97	35.58	35.21	34.20	33.76	33.79	33.47	33.48	33.49	33.51
<b>Imported</b>	38.85	39.00	38.31	38.41	37.84	37.03	36.58	35.82	35.44	35.43	36.21	35.95
<b>Composite</b>	34.86	37.28	37.48	36.58	36.11	35.03	34.70	34.46	34.11	34.07	34.33	34.33
<b>1982</b>												
<b>Domestic</b>	33.39	32.71	31.08	30.27	30.37	30.79	30.92	30.85	30.76	31.38	P31.53	
<b>Imported</b>	35.54	35.48	34.07	32.82	32.78	33.79	33.44	32.95	33.03	33.28	P33.26	
<b>Composite</b>	33.95	33.40	31.81	30.83	31.02	31.74	31.74	31.45	31.40	31.98	P32.11	

P=Preliminary.

Source: • Form EIA-14, "Refiners Monthly Cost Report"

# World Crude Oil Prices<sup>1</sup> (Dollars per Barrel)



<sup>1</sup> Internationally traded oil only. Average price (FOB) weighted by estimated export volume.

Note: Beginning with the May 1, 1981 issue of the Weekly Petroleum Status Report, the world crude oil price is based on a revised crude oil list. Additions: Saudi Arabia's Arabian Heavy, Dubai's Fateh, Egypt's Suez Blend, and Mexico's Maya. Omissions: Canadian Heavy. Replacements: Iraq's Kirkuk Blend for Iraq's Basrah Light. The above graph shows an estimated world crude oil price based on this revised list beginning January 1, 1981. An asterisk shows the January 1, 1980 price based on the revised list. All other 1980 prices represent the old crude list before revisions.

**World Crude Oil Prices<sup>1</sup>**  
(Dollars per Barrel)

Country	Type of Crude/ API Gravity	Current Price	In Effect 1 Jan 82	In Effect 1 Jan 81	In Effect 1 Jan 80	In Effect 31 Dec 78	Percent Change Current Price From	
							In Effect 1 Jan 80	In Effect 31 Dec 78
OPEC								
Saudi Arabia	Arabian Light 34° (Bench mark crude)	34.00	34.00	32.00	26.00	12.70	30.8	167.7
	Saudi Berri 39°	34.52	35.40	33.52	27.52	13.23	25.4	160.9
	Arabian Heavy 27°	31.00	31.00	31.00	25.00	12.02	24.0	157.9
Abu Dhabi	Murban 39°	34.56	35.50	36.56	29.56	13.26	16.9	160.6
Dubai	Fateh 32°	33.86	33.86	35.93	27.93	12.64	21.2	167.9
Qatar	Dukhan 40°	34.49	35.45	37.42	29.42	13.19	17.2	161.5
Iran	Iranian Light 34°	31.20	34.20	37.00	230.00	13.45	4.0	132.0
Iraq	Kirkuk 36°	34.83	34.93	37.50	29.29	13.17	18.9	164.5
Kuwait	Kuwait Blend 31°	32.30	32.30	35.50	27.50	12.22	17.5	164.3
Neutral Zone	Khafji 28°	31.03	31.03	35.20	27.20	12.03	14.1	157.9
Algeria	Saharan 44°	35.50	37.00	40.00	33.00	14.10	7.6	151.8
Nigeria	Bonny Light 37°	35.50	36.50	40.00	28.97	15.12	18.5	134.8
Libya	Es Sider 37°	35.15	36.50	40.78	34.50	13.68	1.9	155.9
Indonesia	Minas 34°	34.53	35.00	35.00	27.50	13.55	25.6	154.8
Venezuela	Tia Juana 26°	32.88	32.88	32.88	25.20	12.72	30.5	158.5
Gabon	Mandji 30°	34.00	34.00	35.00	28.00	12.59	21.4	170.1
Ecuador	Oriente 30°	32.50	34.25	40.06	33.50	12.35	-3.0	163.2
Total OPEC <sup>3</sup>	NA	33.55	34.13	34.82	28.30	13.03	18.6	157.5
Non OPEC								
United Kingdom	Forties 36°	33.50	36.50	39.25	29.75	14.00	12.6	139.3
Norway	Ekofisk 42°	34.25	37.25	40.00	32.50	14.20	5.4	141.2
Mexico	Mexican Light 33°	32.50	35.00	38.50	32.00	13.10	1.6	148.1
"	Mexican Heavy 22°	25.00	28.50	34.50	28.00	NA	10.7	NA
Egypt	Suez Blend 33°	29.00	34.00	40.50	34.00	12.81	-14.7	126.4
Oman	Oman 34°	34.00	35.00	37.50	30.26	13.06	12.4	160.3
Syria	Suwadiyah 26°	30.00	30.00	36.03	31.39	11.64	-4.4	157.7
Malaysia	Miri 38°	35.50	36.50	41.30	33.60	14.30	6.0	149.0
Brunei	Seria 36°	35.10	36.10	40.35	33.40	14.15	5.1	148.1
U.S.S.R. <sup>5</sup>	Export Blend 33°	29.35	35.49	39.25	33.20	13.20	11.6	122.3
Total Non OPEC <sup>3</sup>	NA	31.35	34.35	38.54	31.94	13.44	-1.8	133.3
Total World <sup>3</sup>	NA	32.89	34.18	35.49	28.84	13.08	14.0	151.5
United States <sup>6</sup>	NA	32.51	34.15	36.69	29.35	13.38	10.8	143.0

NA=Not Applicable

<sup>1</sup> Official sales prices or estimated term contract prices, spot prices excluded.

<sup>2</sup> 37c higher at 60 days' credit

<sup>3</sup> Average prices (FOB) weighted by estimated export volume.

<sup>4</sup> On 60 days' credit

<sup>5</sup> Average delivered cost to Northwest Europe.

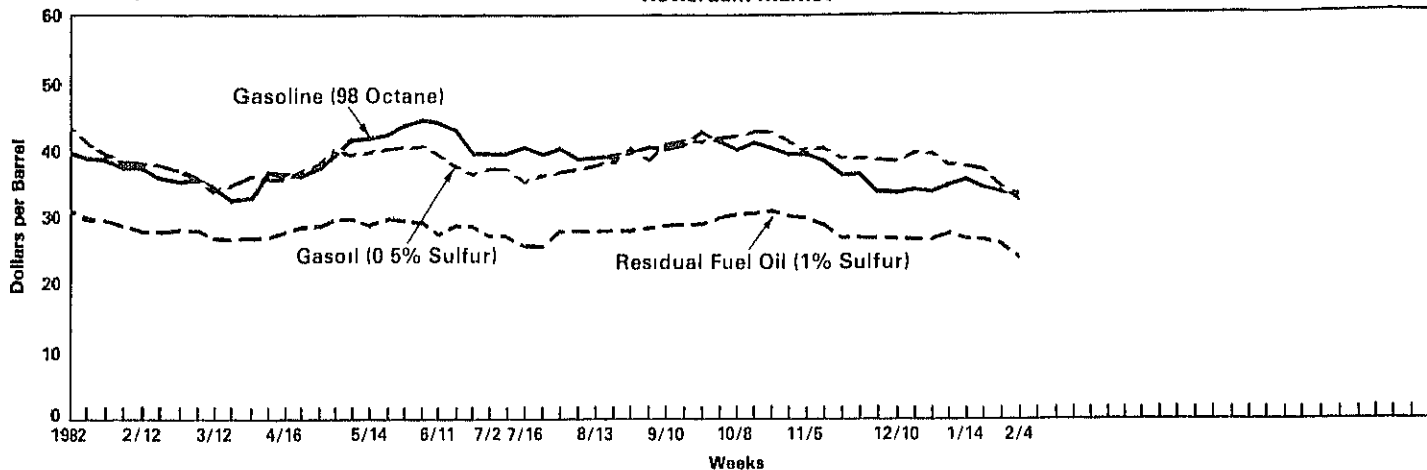
<sup>6</sup> Average prices (FOB) weighted by estimated import volume.

Source: • DOE, Office of International Affairs, February 9, 1983

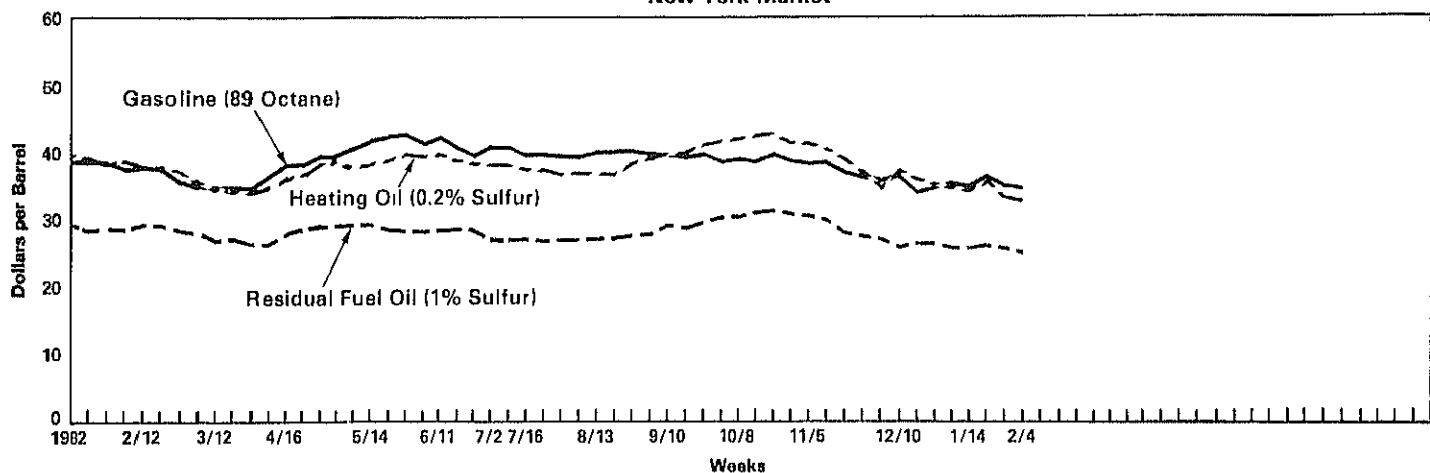
- Platt's Oilgram Price Report.
- Petroleum Intelligence Weekly.
- Oil Buyers' Guide
- Europe Oil Prices

**Spot Market Product Prices  
(Dollars per Barrel)**

**Rotterdam Market**



**New York Market**



Source: • Oil Buyers' Guide, Weekly Oil Market Product Report.  
• DOE, Office of International Affairs.

**Spot Market Product Prices**  
(Dollars per Barrel)

			Motor Gasoline		Gasoil/Heating Oil <sup>1</sup>		Residual Fuel Oil <sup>2</sup>	
			Rotterdam (98 Octane)	N.Y. <sup>3</sup> (89 Octane)	Rotterdam (0.5% Sulfur)	N.Y. <sup>4</sup> (0.2% Sulfur)	Rotterdam (1% Sulfur)	N.Y. <sup>3</sup> (1% Sulfur)
1982	Feb	5	37.22	37.67	38.40	38.54	28.68	28.50
		12	37.22	37.61	37.87	37.90	27.93	29.25
		19	35.93	37.61	37.87	37.80	27.93	29.25
		26	35.52	35.72	37.00	37.38	28.08	28.50
	Mar	5	35.46	34.88	35.32	35.28	28.08	28.00
		12	34.41	34.57	34.38	33.60	26.95	27.00
		19	32.42	34.55	34.99	34.02	26.50	27.00
		26	32.83	34.52	36.13	34.06	26.65	26.25
	Apr	2	36.64	36.54	35.52	34.54	26.80	26.25
		9	36.17	38.01	35.72	36.12	27.78	27.70
		16	36.64	38.22	36.66	36.54	28.53	28.50
		23	37.51	39.69	37.87	38.22	28.75	28.75
		30	39.57	39.40	39.68	38.32	29.43	29.00
	May	7	41.68	40.53	38.81	37.80	29.80	29.25
		12	41.85	41.87	39.21	38.32	29.73	29.50
		19	42.67	42.29	40.21	38.85	29.73	28.75
		26	43.79	42.61	40.35	39.69	29.43	28.35
	Jun	4	44.37	41.68	40.55	39.48	29.05	28.35
		11	44.08	42.21	39.34	39.90	27.40	28.40
		18	43.08	40.66	37.60	38.64	28.60	28.50
		25	39.57	39.56	36.53	38.33	28.45	28.25
	Jul	2	39.86	40.07	37.27	38.01	27.10	27.00
		9	39.86	40.07	37.27	38.01	27.10	27.00
		16	40.04	39.73	35.32	37.59	25.90	27.00
		23	39.57	39.84	36.13	37.38	25.53	26.80
		30	40.12	39.59	36.98	36.96	27.78	27.00
	Aug	6	38.80	39.59	37.33	37.06	28.00	27.00
		13	38.45	40.00	37.60	37.80	27.85	27.00
		20	39.15	40.00	38.70	37.80	27.85	27.25
		27	39.86	40.05	40.28	38.32	27.85	27.75
	Sep	3	40.56	39.84	38.46	39.48	28.38	28.00
		10	40.39	39.69	41.02	39.58	28.68	29.25
		17	41.03	39.38	41.22	39.90	28.75	28.75
		24	42.61	39.38	41.22	41.26	28.90	29.60
	Oct	1	41.03	38.54	41.96	41.58	29.88	30.25
		8	40.15	38.96	42.29	42.00	30.33	30.35
		15	41.03	38.74	42.96	42.42	30.48	31.00
		22	40.04	39.69	42.76	42.74	30.78	31.35
		29	39.39	38.96	41.42	41.37	30.26	30.75
	Nov	5	39.80	38.45	39.88	41.37	29.95	30.50
		12	38.22	38.56	40.28	40.32	28.75	30.00
		19	36.11	37.02	38.81	38.85	26.88	28.00
		26	36.28	36.33	38.87	37.06	26.88	27.50
	Dec	3	33.65	35.76	38.67	35.07	26.95	26.75
		10	33.88	36.50	38.20	36.96	26.80	25.75
		17	34.00	35.13	39.75	36.12	26.73	26.35
		24	33.70	34.92	39.28	34.86	26.73	26.35
1983	Jan	7	34.88	35.13	37.73	34.86	27.55	25.75
		14	35.46	34.82	37.47	34.44	26.73	25.75
		21	34.29	36.29	37.00	35.60	26.58	26.00
		28	33.88	35.03	34.45	33.08	25.98	25.50
	Feb	4	33.70	34.57	32.37	32.55	23.87	25.00

<sup>1</sup> Refers to No. 2 Heating Oil.

<sup>2</sup> Refers to No. 6 Oil.

<sup>3</sup> East Coast Cargoes.

<sup>4</sup> New York Harbor Reseller Barge Prices.

Source: • Oil Buyers' Guide, Weekly Oil Market Product Report.

• DOE, Office of International Affairs.



# **Weather Summary** **(Population Weighted Heating Degree-Days<sup>1</sup>)**

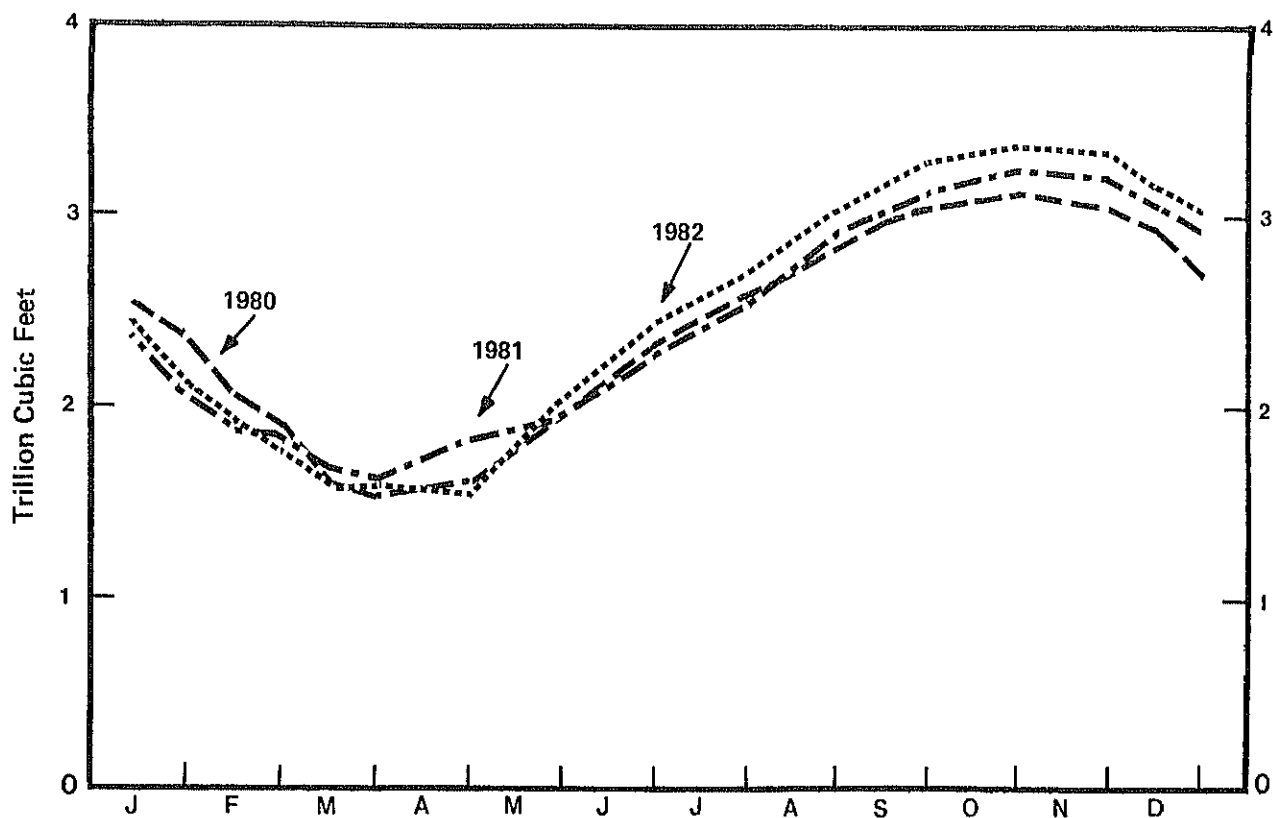
The weather for the nation, as measured by population-weighted heating degree-days from July 1, 1982 through February 6, 1983, has been 9.0 percent warmer than normal and 14.9 percent warmer than last year.

## **Heating Degree-Days, U. S. Total (Population Weighted) and By City**

	1982-1983 This year	1981-1982 Last year	Normal	Percent Change	
				This year vs. Last year	This year vs. Normal
<b>U.S. Total</b>					
July 1 - June 30	—	4,967	4,695	—	—
July 1 - February 6	2,503	2,940	2,750	-14.9	-9.0
<b>Cities</b>					
Albuquerque	3,068	2,682	2,820	14	9
Amarillo	2,965	2,692	2,671	10	11
Asheville	2,551	2,943	2,697	-13	-5
Atlanta	1,879	2,257	2,049	-17	-8
Billings	3,862	4,500	4,372	-14	-12
Boise	3,613	3,707	3,631	-3	0
Boston	2,951	3,603	3,297	-18	-10
Buffalo	3,493	4,272	4,037	-18	-13
Cheyenne	4,271	4,105	4,215	4	1
Chicago	3,568	4,558	3,979	-22	-10
Cincinnati	2,740	3,669	3,170	-25	-14
Cleveland	3,033	4,009	3,669	-24	-17
Columbia, SC	1,791	1,991	1,764	-10	2
Denver	3,842	3,237	3,589	19	7
Des Moines	3,709	4,448	4,188	-17	-11
Detroit	3,472	4,350	3,871	-20	-10
Fargo	5,371	6,184	5,720	-13	-6
Hartford	3,387	3,911	3,840	-13	-12
Houston	1,121	1,024	1,000	9	12
Jacksonville	924	925	911	0	1
Kansas City	3,331	3,809	3,422	-13	-3
Las Vegas	1,835	1,497	1,800	23	2
Los Angeles	650	667	960	-3	-32
Memphis	1,909	2,308	2,161	-17	-12
Miami	87	147	134	-41	-35
Milwaukee	3,815	4,964	4,433	-23	-14
Minneapolis	4,563	5,382	5,039	-15	-9
Montgomery	1,313	1,584	1,566	-17	-16
New York	2,614	3,204	2,914	-18	-10
Oklahoma City	2,354	2,629	2,438	-10	-3
Omaha	3,818	4,628	3,828	-18	0
Philadelphia	2,681	3,351	2,985	-20	-10
Phoenix	775	652	1,087	19	-29
Pittsburgh	3,164	4,066	3,647	-22	-13
Portland, ME	3,979	4,462	4,398	-11	-10
Providence	3,037	3,828	3,500	-21	-13
Raleigh	2,120	2,501	2,290	-15	-7
Richmond	2,209	2,762	2,525	-20	-13
Salem, OR	2,746	2,905	2,877	-5	-5
Salt Lake City	3,633	3,319	3,716	9	-2
San Francisco	1,781	1,780	1,753	0	2
Seattle	2,750	2,859	3,078	-4	-11
Shreveport	1,676	1,714	1,488	-2	13
St. Louis	2,838	3,500	3,038	-19	-7
Washington, D.C.	2,206	2,745	2,655	-20	-17

<sup>1</sup> Heating degree-days for a given location on a given day are the number of degrees that the mean temperature (average of daily maximum and minimum temperatures) that day is below 65°F. Heating degree-days give a rough measure of the demand for heating oil.  
 Source: • National Oceanic and Atmospheric Administration, Department of Commerce.  
 • U.S. Census Bureau, 1981 Population Estimates.

Natural Gas in Underground Storage  
(Trillion Cubic Feet)



	Working Gas <sup>1</sup>			
	1980	1981	1982	1983
January 15	2.566	2.368	2.492	2.910
January 31	2.324	2.152	2.181	P2.652
February 15	2.034	1.853	1.900	
February 28	1.852	1.824	1.786	
March 15	1.661	1.699	1.661	
March 31	1.594	1.631	1.603	
April 30	1.691	1.764	1.675	
May 31	1.998	1.977	2.033	
June 30	2.299	2.252	2.368	
July 31	2.587	2.556	2.706	
August 31	2.854	2.882	3.001	
September 30	3.099	3.152	3.251	
October 31	3.187	3.247	3.362	
November 30	3.026	3.200	3.309	
December 15	2.882	3.048	3.197	
December 31	2.655	2.815	3.072	

P=Preliminary.

<sup>1</sup> Working Gas: Gas available for withdrawal.

Source : • FEA System, EIA 91, "Underground Gas Storage Report."

## Appendix A: EIA Weekly Data : Survey Design and Estimation Methods

The Weekly Petroleum Reporting System (WPRS) comprises five surveys: the "Weekly Refinery Report" (EIA-800); the "Weekly Bulk Terminal Report" (EIA-801); the "Weekly Product Pipeline Report" (EIA-802); the "Weekly Crude Oil Stocks Report" (EIA-803); and the "Weekly Imports Report" (EIA-804). The EIA weekly reporting system, as part of the Petroleum Supply Reporting System, was designed to collect data similar to those collected monthly. In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data are used to estimate the published weekly totals.

### Sample Frame

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly. All sampled companies report data only for facilities in the 50 States and District of Columbia. The EIA-800 sample frame includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline. The EIA-801 sample frame includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The EIA-802 sample frame includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intra-state and intracompany pipeline movements. Pipeline companies that only transport natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies which transport products covered in the weekly survey are included. The EIA-803 sample frame consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil. The EIA-804 sample frame includes all importers of record of crude oil and petroleum products into the United States.

### Sampling

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

	Refiners (Refineries)	Bulk Terminals	Pipelines	Crude Oil Stock Holders	Importers
Weekly Form	EIA-800	EIA-801	EIA-802	EIA-803	EIA-804
Monthly Frame Size	186(347)	173	65	296	955
Weekly Sample Size	84(215)	93	65	111	61

### Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

### Estimation and Imputation

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data. First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum,  $W_t$ ). Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum,  $M_s$ ). Finally, let  $M_t$  be the sum of the most recent month's data for the product as reported by all companies. Then, the current week's ratio estimate for that product for all companies,  $W_t$ , is given by :

$$W_t = \frac{M_t}{M_s} \cdot W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production. To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratio multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

Explicit Imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

### Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-800; 75 percent for the EIA-801; 95 percent for the EIA-802; 80 percent for the EIA-803; and greater than 95 percent for the EIA-804. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

## Appendix B: Interpretation and Derivation of Average Inventory Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, and residual fuel oil in this publication include features to assist in comparing current inventory levels with past inventory levels and with judgments of critical levels. Methods used in developing the average inventory levels and minimum operating levels are described below.

### Average Inventory Levels

The charts displaying inventory levels of total petroleum products (p. 7), crude oil (p. 7), motor gasoline (p. 9) distillate fuel oil (p. 11), and residual fuel oil (p. 13) provide the reader with actual inventory data compared to an "average range" from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in March and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for total petroleum (crude and products), crude oil, distillate fuel oil, and residual fuel oil were derived using monthly data from 1975-1981. For motor gasoline, the seasonal factors were based on monthly data from 1975-1976 and 1978-1981. In 1977, monthly stock levels of motor gasoline stayed at the same high level for the entire year. Since there was virtually no seasonal behavior in motor gasoline stocks that year, 1977 was not used in the determination of seasonal patterns for motor gasoline stocks.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the "average range" is twice the standard deviation. The values of the upper and lower curves are presented in the table below.

Values of Average Ranges in Inventory Graphs  
(Millions of Barrels)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lower Range												
Total Petroleum	1185.5	1143.1	1138.5	1149.3	1163.9	1175.9	1204.2	1219.5	1244.2	1250.6	1252.9	1209.4
Crude Oil	347.0	345.5	354.0	358.2	355.5	354.4	349.2	344.4	344.8	352.7	351.4	341.8
Motor Gasoline	253.8	260.1	256.0	245.1	235.8	230.9	229.0	227.6	229.1	221.1	226.6	237.1
Distillate Fuel Oil	161.6	132.0	120.3	121.5	130.3	145.0	167.5	187.7	206.0	212.5	213.0	191.1
Residual Fuel Oil	71.0	67.9	64.8	66.1	69.4	66.7	70.2	70.3	75.1	79.1	79.5	77.6
Upper Range												
Total Petroleum	1301.2	1258.8	1254.2	1265.0	1279.6	1291.6	1319.9	1335.3	1359.9	1366.3	1368.6	1325.1
Crude Oil	377.8	376.3	384.8	388.9	386.2	385.1	379.9	375.1	375.5	383.5	382.2	372.5
Motor Gasoline	279.7	286.1	282.0	271.0	261.8	256.8	255.0	253.5	255.0	247.1	252.6	263.0
Distillate Fuel Oil	205.5	175.9	164.2	165.4	174.2	188.9	211.4	231.6	249.9	256.4	256.9	235.0
Residual Fuel Oil	88.5	85.4	82.4	83.6	86.9	84.3	87.8	87.8	92.6	96.7	97.0	95.1

### Minimum Operating Levels

The lines labeled "minimum operating inventory" for crude oil, motor gasoline, distillate fuel oil, and residual fuel oil were derived by the National Petroleum Council from a 1978 survey of petroleum refineries, bulk terminal operators, and petroleum pipelines. The Council also surveyed industry experts. The findings were published in "Petroleum Storage and Transportation Capacities" in December 1979. In that document, minimum operating inventory is described as follows:

Inventory below this level is not available for consumer use because it is required to fill pipelines, tank bottoms and refinery process equipment; facilitate blending to meet the product specifications; prepare for planned maintenance periods; handle unavoidable but anticipated emergencies; and sustain uninterrupted operations. Runouts and shortages would begin to occur if inventory were to fall below this level.

The values were: crude oil -- 290 million barrels; motor gasoline -- 210 million barrels; distillate fuel oil -- 125 million barrels; and residual fuel oil -- 60 million barrels.

Since the National Petroleum Council did not derive a minimum operating inventory level for total petroleum stocks, the line labeled "observed minimum" is based on the lowest inventory level observed during the same 3-year base period that was used in the derivation of the average inventory levels. For crude oil, motor gasoline, distillate fuel oil, and residual fuel oil, the observed minimum and the minimum operating inventory are quite close. Hence, it is thought that the observed minimum is a reasonable proxy for the minimum operating inventory.

## Appendix C: Projection of Product Supplied from the November 1982 Short-Term Energy Outlook

The projections of "high" and "low" total petroleum demand, shown in the WPSR as total product supplied, are from the Office of Energy Markets and End Use, Short-Term Energy Outlook, (Outlook) November 1982.

Three forecast cases are presented in the Outlook based on differing assumptions about the world price of crude oil. In case 1, it is assumed that prices decrease to an effective OPEC marker crude price of \$28 per barrel by the end of 1982 and then remain level in 1983. In case 2, imported crude oil prices are stable at the October 1982 level of \$33.44 per barrel through 1983. In case 3, imported crude oil prices rise to \$33.77 per barrel in the fourth quarter of 1982, then rise at 3 times the U.S. inflation rate in 1983. Macroeconomic inputs are based on a forecast from Data Resources, Inc. (DRI CONTROL 102682).

The "high demand" case is formed by adding the case 1 (low price) forecast of total demand to the square root of the sum of the squares of increases in demand resulting from the following changes in key variables: (1) a 5-percent increase in heating degree-days over the base case, (2) a 7-percent increase in cooling degree-days over the base case, (3) an increase in income over the base case that reflects average forecast errors over a 3-year period, (4) a 5 5-percent decrease in new car efficiency from the base case in 1982 and an 11.4-percent decrease from the base level in 1983, and (5) a preliminary data adjustment factor. The "low demand" case is formed by subtracting from the case 3 (high price) forecast the square root of the sum of the squared decreases in demand resulting from decreases from the base case for heating degree-days, cooling degree-days, and income; and a 9.1 percent increase from the base case new car efficiency in 1982 followed by a 17.1-percent increase from the base case in 1983.

For detailed information on the assumptions used in the forecast methodologies, please refer to the published report, Short-Term Energy Outlook, November 1982.

Copies of the report are available from:

National Energy Information Center  
Room 1F-048, Forrestal Building  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585  
Telephone 202-252-8800

## Appendix D: Changes in 1983 Weekly Petroleum Status Report Series

Some data series presented in the 1983 issues of the Weekly Petroleum Status Report (WPSR) are different from 1982 WPSR data series. The differences, which are discussed below, are the result of changes made in the 1983 weekly data collection forms of the Petroleum Supply Reporting System to increase consistency between monthly and weekly published series and to reduce reporter burden. One change has been made in estimation methodology.

### Changes from Data Forms

In 1983, weekly petroleum supply forms collect data for finished motor gasoline production, stocks, and imports. This change means that the components of 1983 WPSR motor gasoline product supplied estimates are definitionally the same as the components of the monthly product supplied estimates calculated from monthly data. In 1982, weekly forms combined imports of motor gasoline blending components with finished motor gasoline imports in a single category, total motor gasoline imports. In 1983 imports of motor gasoline include finished product only. In 1983, weekly forms include imports of motor gasoline blending components in other oils imports. In the 1983 WPSR publication, the monthly other oils series for 1981 and 1982 (see p. 15) includes imports of motor gasoline blending components. In the first ten months of 1982, imports of motor gasoline blending components averaged 37 thousand barrels a day and ranged between 19 and 50 thousand barrels per day.

Kerosene production and stocks reports are not collected on 1983 weekly forms. Consequently, in 1983, the weekly other oils stocks estimate (pgs. 3 and 6) includes kerosene. Other oils product supplied, which is calculated for the WPSR as the difference between total product supplied and the product supplied estimates of listed products, is larger in 1983 because it includes kerosene product supplied, which can no longer be calculated from weekly data (see p. 16). Kerosene stocks in the first 10 months of 1982 ranged between 8.8 and 10.2 million barrels. The values of kerosene product supplied, averaged 121 thousand barrels per day in the first 10 months of 1982.

### Change in Methodology

In 1983, reports of crude oil used as fuel on leases are treated as reports of crude oil product supplied, a new product supplied category. Before 1983, crude oil used in this fashion was reported as a use of distillate fuel oil or residual fuel oil and was included in the respective product supplied calculations. Weekly estimates for product supplied made in 1983 do not include estimates for these quantities and are compared in the U.S. Petroleum Balance (p. 3) to recast 1982 data. The monthly series for 1981 and 1982 shown on p. 16 are the quantities originally calculated and published including crude oil used as fuel. In the first 10 months of 1982, the quantities of crude oil used directly in the distillate fuel oil product supplied and residual fuel oil product supplied calculations averaged 11 thousand barrels per day and 50 thousand barrels per day, respectively.

## Appendix E: Calculation of World Oil Prices (page 19)

The weighted average international price of oil, shown in the "Highlights" and on page 19, is an average calculated using specific crude oil prices weighted by the estimated crude oil export volume for each oil-producing country. To develop the table shown on page 19, a list of major oil producing/exporting countries was chosen. For each country, the official selling price of one or more representative crude oils was determined by investigating a number of industry publications (i.e., "Oil Buyers' Guide," "Platt's Oilgram Price Report," "Petroleum Intelligence Weekly," and "Europe Oil Prices") and by contacting oil market analysts.

Then, the appropriate crude oil volumes to be used as weighting factors for each country were determined. These volumes are estimates based on a number of sources which provide data on production, consumption, and exports for these countries. Export volumes for a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors. After the export volumes had been determined, simple mathematical weighted averages were calculated to arrive at the "Total OPEC," "Total Non-OPEC," and "Total World" prices.

The average United States (FOB) import price is derived by the same basic procedure as the world oil price, that is, taking the representative official crude oil price of a specific crude oil from a particular country and weighting this price by a certain volume of crude oil. In this case, the weighting factors are the volumes of crude oil imported into the U.S. from pertinent countries. Import volumes from a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors.

Both the import and export volumes are preliminary. Due to their origin, these estimates cannot be fully verified. These volumes are updated monthly, or more frequently when changes in oil market conditions make updating appropriate.

## Glossary

- Barrels. 42-gallon barrels.
- Crude Oil. A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate and drips are included but topped crude oil (residual) and other unfinished oils are excluded.
- Crude Oil Inputs. The total crude oil put into processing units at refineries.
- Distillate Fuel Oils. Includes No. 1, No. 2, and No. 4 fuel oils, and No. 1, No. 2, and No. 4 diesel fuels. These are light fuel oils used primarily for home heating as a diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and for electric power generation.
- Gross Inputs. The crude oil, unfinished oils, and natural gas plant liquids put into distillation units.
- Imports. Unless otherwise specified in this report, refers to gross imports. Imports of minor products ("other oils") include aviation gasoline, kerosene, unfinished oils, liquefied petroleum gases, plant condensate, petrochemical feedstocks, lube oils, waxes, special naphthas, coke, asphalt, blending components, and other miscellaneous oils.
- Jet Fuel. Includes kerosene-type jet fuel and naphtha-type jet fuel. Kerosene-type jet fuel is a kerosene quality product used primarily for commercial turbojet and turboprop aircraft engines. Naphtha-type jet fuel is a fuel in the heavy naphthas range used primarily for military turbojet and turboprop aircraft engines.
- Motor Gasoline. Finished leaded gasoline, finished unleaded gasoline, and blending components in the gasoline range. Production and imports data represent finished leaded gasoline and finished unleaded gasoline. Stocks data consist of the two types of finished gasoline and blending components. Stock change used in the calculation of motor gasoline product supplied is the change in finished motor gasoline stocks. Imports of motor gasoline blending components are contained in other oils imports.
- Operable Capacity. The amount of crude oil distillation capacity that, at the beginning of the month, is in operation; or is not in operation and not under active repair but capable of being placed in operation within 30 days; or is not in operation but under active repair that can be completed in 90 days.
- Product Supplied. A value calculated for specific products which is equal to domestic production plus net imports (imports less exports), less the net increase in primary stocks. Total products supplied is calculated as inputs to refineries, plus estimated refinery gains, plus other hydrocarbon input, plus product imports, less product exports, less the net increase in product stocks. Values shown for "Other Oils" product supplied are the difference between total product supplied and product supplied values for specified products. Other oils product supplied incorporates crude oil product supplied and reclassified product adjustment.
- Refiner Acquisition Cost of Crude Oil. The average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1131. Imported crude oil is any crude oil which is not domestic oil. The composite is the weighted average price of domestic and imported crude oil. Prices do not include price of unfinished oils or SPR.
- Refinery Capacity Utilization. Ratio of the total amount of crude oil, unfinished oils, and natural gas plant liquids run through crude oil distillation units to the operable capacity of these units. In the period 1979-1982 the refinery capacity utilization for all U.S. refineries ranged between 87 percent and 65 percent. The ratio for an individual refinery may fluctuate much more depending on the type of crude and other raw materials processed, the type of products produced, and the operating conditions of the refinery.
- Residual Fuel Oils. Includes No. 5 and No. 6 fuel oils which are heavy oils used primarily for electric power generation, for industrial and commercial space heating, as a ship fuel, and for various industrial uses.
- Retail Motor Gasoline Prices. Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). These prices are collected in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service).
- Stocks. For individual products in WPSR, quantities held at refineries, in pipelines, and at bulk terminals with a capacity over 50 thousand barrels. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but included in "Other Oils" estimates and "Total."
- Stock Change (Refined Products). Component of Product Supplied calculation shown on U. S. Petroleum Balance. The product stock change shown on the U.S. Petroleum Balance Sheet for the current 4-week period is calculated in the following way: an average daily stock change is calculated for major refined products (i.e., all actual reported stocks); this stock change is added to an estimate for minor product stock change based on historical monthly data, a daily average stock change for refined product stocks for the 4-week period is then calculated. To calculate minor product stock change, the stock levels shown for other oils in the stock section of the balance sheet are used. These other oils stock levels are derived by 1) computing an average daily rate of stock change for each month based on monthly data for the past six years; 2) using this daily rate and the minor stock level from the most recent monthly publication to estimate the minor product stock level for the current period.
- Unaccounted-for Crude Oil. Term which appears in U.S. Petroleum Balance Sheet. It reconciles the difference between data (or estimates) about supply and data (or estimates) about use. Its value can be positive or negative since it is a balancing term. As it appears in the monthly publications, it reflects the accuracy of the reported data on crude oil imports, production, stocks, refinery input, losses, exports, and transfers (crude oil burned directly as fuel oil). It reflects the quality of the estimates as well as the accuracy of the reported data. Because the unaccounted-for crude oil figure reflects the accuracy of reported and estimated figures, one would expect the figure to be larger in balances using preliminary or estimated data and smaller in balances using the final data. In fact, the published figures confirm this expectation. In the WPSR, four-week averages for the previous year are interpolated from final monthly data, so that the unaccounted-for crude oil value for the previous years is considerably smaller than that for the current period.
- United States. For the purpose of this report, the 50 states and the District of Columbia. Data for the Virgin Islands, Puerto Rico, and other U.S. territories are not included in the U.S. totals.